



**PROJECT MANUAL FOR:**

**RIVER AND HARRISON STREETS IMPROVEMENTS**

**PROJECT NUMBER: 24-0013**

**CITY OF GRAND LEDGE**

**310 GREENWOOD STREET**

**GRAND LEDGE, MICHIGAN 48837**

**ISSUE DATE: JULY 8, 2024**

**BID DATE: JULY 31, 2024**



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[Link to MDOT Standard Plans Index](#)

[Link to MDOT Special Details Index](#)

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M0020a TABLES FOR L, B, AND D VALUES

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[Link to Work Zone Device Special Details](#)

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[Link to MDOT Pavement Marking Standards](#)

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**SCHEDULE OF ITEMS**

SEE FOLLOWING PAGE(S)

**City of Grand Ledge**  
**Schedule of Items (Itemized Bid Sheet)**

**Letting Date:** Wednesday, July 31, 2024 1:00 PM

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**Contract ID:** 24-0013  
**Location:** River St - Bridge St to Jefferson St and Harrison St  
**Description:**

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**Instructions to Bidders:** IMPORTANT NOTICE:

Work not specifically listed as a pay item will be considered incidental to the pay items that are listed and will not be paid for separately.

Pay Item	Description	Quantity	Units	Unit Price		Bid Amount		
				Dollars	Cts	Dollars	Cts	
<b>Project #: 24-0013 River St - Bridge St to Jefferson St and Harrison St Category: 0001 Shared</b>								
0001	1100001	Mobilization, Max 10%	1	LSUM				
0002	2040080	Exploratory Investigation, Vertical	50	Ft				
0003	2050041	Subgrade Undercutting, Type II	200	Cyd				
0004	2080020	Erosion Control, Inlet Protection, Fabric Drop	29	Ea				
0005	2087051	_ Temporary Erosion and Sediment Control	1	LSUM				
0006	2090001	Project Cleanup	1	LSUM				
0007	4030290	Dr Structure, Cleaning	25	Ea				
0008	8120012	Barricade, Type III, High Intensity, Double Sided, Lighted, Furn	10	Ea				
0009	8120013	Barricade, Type III, High Intensity, Double Sided, Lighted, Oper	10	Ea				
0010	8120170	Minor Traf Devices	1	LSUM				
0011	8120370	Traf Regulator Control	1	LSUM				
0012	8167011	_ Turf Establishment, Performance	250	Syd				
<b>Project/Category Total:</b>								

Pay Item	Description	Quantity	Units	Unit Price		Bid Amount	
				Dollars	Cts	Dollars	Cts
<b>Project #: 24-0013 River St - Bridge St to Jefferson St and Harrison St</b>				<b>Category: 0002 River Street from Jefferson St to Harrison St</b>			
0013	2040020	Curb and Gutter, Rem	1,130	Ft			
0014	2040055	Sidewalk, Rem	45	Syd			
0015	2050030	Machine Grading	5.5	Sta			
0016	3010002	Subbase, CIP	800	Cyd			
0017	3020010	Aggregate Base, 4 inch (Underneath curblin)	380	Syd			
0018	3020020	Aggregate Base, 8 inch	1,850	Syd			
0019	4020987	Sewer, CI IV, 12 inch, Tr Det B	316	Ft			
0020	4021275	Video Taping Sewer and Culv Pipe	316	Ft			
0021	4027001	_ Trench Drain in Curb Line	50	Ft			
0022	4030005	Dr Structure Cover, Adj, Case 1	4	Ea			
0023	4030010	Dr Structure Cover, Type B	1	Ea			
0024	4030050	Dr Structure Cover, Type K	3	Ea			
0025	4030210	Dr Structure, 48 inch dia	4	Ea			
0026	4030312	Dr Structure, Tap, 12 inch	1	Ea			
0027	4030390	Dr Structure, Temp Lowering	3	Ea			
0028	4040061	Underdrain, Subbase, 4 inch	1,150	Ft			
0029	5010005	HMA Surface, Rem	1,850	Syd			
0030	5010033	HMA, 13A	430	Ton			
0031	8020038	Curb and Gutter, Conc, Det F4	1,120	Ft			
0032	8030010	Detectable Warning Surface (Cast Iron)	10	Ft			
0033	8030030	Curb Ramp Opening, Conc	10	Ft			

Pay Item	Description	Quantity	Units	Unit Price		Bid Amount		
				Dollars	Cts	Dollars	Cts	
0034 8030044	Sidewalk, Conc, 4 inch	280	Sft					
0035 8032002	Curb Ramp, Conc, 6 inch	120	Sft					
0036 8037001	_ Concrete Lateral Wall, 2 to 10 inch Height	10	Ft					
0037 8110233	Pavt Mrkg, Waterborne, 6 inch, White (Crosswalk)	70	Ft					
0038 8110237	Pavt Mrkg, Waterborne, 12 inch, White (Stop Bar)	15	Ft					
0039 8230431	Gate Box, Adj, Case 1	2	Ea					
<b>Project/Category Total:</b>								

Pay Item	Description	Quantity	Units	Unit Price		Bid Amount		
				Dollars	Cts	Dollars	Cts	
<b>Project #: 24-0013 River St - Bridge St to Jefferson St and Harrison St</b>				<b>Category: 0003 River Street from Harrison St to Bridge St</b>				
0040	4030005	Dr Structure Cover, Adj, Case 1	4	Ea				
0041	4030390	Dr Structure, Temp Lowering	4	Ea				
0042	5010002	Cold Milling HMA Surface (2 inch)	850	Syd				
0043	5010033	HMA, 13A	115	Ton				
0044	8110231	Pavt Mrkg, Waterborne, 4 inch, White	160	Ft				
0045	8110237	Pavt Mrkg, Waterborne, 12 inch, White	90	Ft				
0046	8110293	Pavt Mrkg, Waterborne, for Rest Areas, Parks, and Lots, 4 inch, Blue	150	Ft				
0047	8117050	_ Pavt Mrkg, Waterborne, Accessible Sym	1	Ea				
0048	8230431	Gate Box, Adj, Case 1	2	Ea				
<b>Project/Category Total:</b>								

Pay Item	Description	Quantity	Units	Unit Price		Bid Amount		
				Dollars	Cts	Dollars	Cts	
<b>Project #: 24-0013 River St - Bridge St to Jefferson St and Harrison St</b>				<b>Category: 0004 Harrison Street from Jefferson St to River St</b>				
0049	2020002	Tree, Rem, 19 inch to 36 inch	1	Ea				
0050	2040020	Curb and Gutter, Rem	100	Ft				
0051	2040055	Sidewalk, Rem	90	Syd				
0052	4030005	Dr Structure Cover, Adj, Case 1	6	Ea				
0053	4030390	Dr Structure, Temp Lowering	6	Ea				
0054	5010002	Cold Milling HMA Surface (2 inch)	1,100	Syd				
0055	5010033	HMA, 13A	145	Ton				
0056	8020038	Curb and Gutter, Conc, Det F4	70	Ft				
0057	8030010	Detectable Warning Surface (Cast Iron)	30	Ft				
0058	8030030	Curb Ramp Opening, Conc	30	Ft				
0059	8030044	Sidewalk, Conc, 4 inch	430	Sft				
0060	8032002	Curb Ramp, Conc, 6 inch	280	Sft				
0061	8037001	_ Concrete Lateral Wall, 2 to 10 inch Height	25	Ft				
0062	8110233	Pavt Mrkg, Waterborne, 6 inch, White (Crosswalks)	110	Ft				
0063	8110237	Pavt Mrkg, Waterborne, 12 inch, White (Stop Bar)	24	Ft				
<b>Project/Category Total:</b>								

Pay Item	Description	Quantity	Units	Unit Price		Bid Amount		
				Dollars	Cts	Dollars	Cts	
<b>Total Bid:</b>								

**Contractor:** \_\_\_\_\_

\_\_\_\_\_  
(Signature)

\_\_\_\_\_  
(Date)

**EJCDC C-111 ADVERTISEMENT FOR BIDS**

**CITY OF GRAND LEDGE  
310 GREENWOOD STREET, GRAND LEDGE, MICHIGAN 48837  
RIVER AND HARRISON STREETS IMPROVEMENTS**

**General Notice**

**City of Grand Ledge** (Owner) is requesting Bids for the construction of the following Project:

**City of Grand Ledge - River and Harrison Streets Improvements  
24-0013**

Bids for the construction of the Project will be received at the **Grand Ledge City Offices** located at **310 Greenwood St, Grand Ledge, MI 48837**, until **Wednesday, July 31, 2024 at 1:00 pm** local time. At that time the Bids received will be **publicly** opened and read.

The Project includes the following Work:

**Approximately 0.237 miles of road reconstruction including +/-735 tons of HMA pavement, +/-1200' concrete curb and gutter, +/-1100 sft sidewalk & ramps, +/-316' storm sewer, and miscellaneous pavement markings.**

Owner anticipates that the Project's total bid price will be approximately **\$476,687.50**. The Project has an expected duration of **60** days.

**Obtaining the Bidding Documents**

Information and Bidding Documents for the Project can be found at the following designated website:

**[bidexpress.com](http://bidexpress.com)**

Bidding Documents may be downloaded from the designated website. **Prospective Bidders are required to register with the designated website as a Vendor and select the plan holder button on the electronic solicitation page, even if Bidding Documents are obtained from a plan room or source other than the designated website in either electronic or paper format.** The designated website will be updated periodically with addenda, lists of registered plan holders, reports, and other information relevant to submitting a Bid for the Project. All official notifications, addenda, and other Bidding Documents will be offered only through the designated website. Neither Owner nor Engineer will be responsible for Bidding Documents, including addenda, if any, obtained from sources other than the designated website.

The Issuing Office for the Bidding Documents is:

**Wolverine Engineers & Surveyors, Inc  
312 North Street, Mason, MI 48854**

Prospective Bidders may obtain or examine the Bidding Documents at the Issuing Office on Monday through Friday between the hours of 8am and 4pm, and may obtain copies of the Bidding Documents from the Issuing Office as described below. Partial sets of Bidding Documents will not be available from the Issuing Office. Neither Owner nor Engineer will be responsible for full or partial sets of Bidding Documents, including addenda, if any, obtained from sources other than the Issuing Office.

**Instructions to Bidders.**

For all further requirements regarding bid submittal, qualifications, procedures, and contract award, refer to the Instructions to Bidders that are included in the Bidding Documents.

**This Advertisement is issued by:**

**City of Grand Ledge**  
**Gregory Newman**  
**City Clerk**  
**July 8, 2024**

## EJCDC C-200 INSTRUCTIONS TO BIDDERS FOR CONSTRUCTION CONTRACT

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#### ARTICLE 1 - DEFINED TERMS

1.01 Terms used in these Instructions to Bidders have the meanings indicated in the General Conditions and Supplementary Conditions. Additional terms used in these Instructions to Bidders have the meanings indicated below:

- A. *Issuing Office* - The office from which the Bidding Documents are to be issued, and which registers plan holders.

#### ARTICLE 2 - BIDDING DOCUMENTS

2.01 Bidder shall obtain a complete set of Bidding Requirements and proposed Contract Documents (together, the Bidding Documents). See the Agreement for a list of the Contract Documents. It is Bidder's responsibility to determine that it is using a complete set of documents in the preparation of a Bid. Bidder assumes sole responsibility for

errors or misinterpretations resulting from the use of incomplete documents, by Bidder itself or by its prospective Subcontractors and Suppliers.

2.02 Bidding Documents are made available for the sole purpose of obtaining Bids for completion of the Project and permission to download or distribution of the Bidding Documents does not confer a license or grant permission or authorization for any other use. Authorization to download documents, or other distribution, includes the right for plan holders to print documents solely for their use, and the use of their prospective Subcontractors and Suppliers, provided the plan holder pays all costs associated with printing or reproduction. Printed documents may not be re-sold under any circumstances.

2.03 Owner has established a Bidding Documents Website as indicated in the Advertisement or invitation to bid. Owner **requires** that Bidder register as a plan holder with the Issuing Office to obtain a complete set of the Bidding Documents from such website. Bidders may rely that sets of Bidding Documents obtained from the Bidding Documents Website are complete, unless an omission is blatant. Registered plan holders will receive Addenda issued by Owner.

2.04 *Electronic Documents*

A. When the Bidding Requirements indicate that electronic (digital) copies of the Bidding Documents are available, such documents will be made available to the Bidders as Electronic Documents in the manner specified.

1. Bidding Documents will be provided in Adobe PDF (Portable Document Format) (.pdf) that is readable by Adobe Acrobat Reader Version DC or later. It is the intent of the Engineer and Owner that such Electronic Documents are to be exactly representative of the paper copies of the documents. However, because the Owner and Engineer cannot totally control the transmission and receipt of Electronic Documents nor the Contractor's means of reproduction of such documents, the Owner and Engineer cannot and do not guarantee that Electronic Documents and reproductions prepared from those versions are identical in every manner to the paper copies.

B. Unless otherwise stated in the Bidding Documents, the Bidder may use and rely upon complete sets of Electronic Documents of the Bidding Documents, described in Paragraph 2.06.A above. However, Bidder assumes all risks associated with differences arising from transmission/receipt of Electronic Documents versions of Bidding Documents and reproductions prepared from those versions and, further, assumes all risks, costs, and responsibility associated with use of the Electronic Documents versions to derive information that is not explicitly contained in printed paper versions of the documents, and for Bidder's reliance upon such derived information.

**ARTICLE 3 - QUALIFICATIONS OF BIDDERS**

3.01 To demonstrate Bidder's qualifications to perform the Work, after submitting its Bid and within 5 days of Owner's request, Bidder must submit the following information:

- A. Written evidence establishing its qualifications such as financial data, previous experience, and present commitments.
  - B. A written statement that Bidder is authorized to do business in the state where the Project is located, or a written certification that Bidder will obtain such authority prior to the Effective Date of the Contract.
  - C. Bidder's state or other contractor license number, if applicable.
  - D. Subcontractor and Supplier qualification information.
  - E. Other required information regarding qualifications.
- 3.02 A Bidder's failure to submit required qualification information within the times indicated may disqualify Bidder from receiving an award of the Contract.
- 3.03 No requirement in this Article 3 to submit information will prejudice the right of Owner to seek additional pertinent information regarding Bidder's qualifications.

#### **ARTICLE 4 - PRE-BID CONFERENCE**

- 4.01 A pre-bid conference will not be conducted for this Project.

#### **ARTICLE 5 - SITE AND OTHER AREAS; EXISTING SITE CONDITIONS; EXAMINATION OF SITE; OWNER'S SAFETY PROGRAM; OTHER WORK AT THE SITE**

##### *5.01 Site and Other Areas*

##### *5.02 Existing Site Conditions*

###### **A. Subsurface and Physical Conditions; Hazardous Environmental Conditions**

1. The Supplementary Conditions identify the following regarding existing conditions at or adjacent to the Site:
  - a. Those reports of explorations and tests of subsurface conditions at or adjacent to the Site that contain Technical Data.
  - b. Those drawings known to Owner of existing physical conditions at or adjacent to the Site, including those drawings depicting existing surface or subsurface structures at or adjacent to the Site (except Underground Facilities), that contain Technical Data.
  - c. Reports and drawings known to Owner relating to Hazardous Environmental Conditions that have been identified at or adjacent to the Site.
  - d. Technical Data contained in such reports and drawings.
2. Owner will make copies of reports and drawings referenced above available to any Bidder on request. These reports and drawings are not part of the Contract

Documents, but the Technical Data contained therein upon whose accuracy Bidder is entitled to rely, as provided in the General Conditions, has been identified and established in the Supplementary Conditions. Bidder is responsible for any interpretation or conclusion Bidder draws from any Technical Data or any other data, interpretations, opinions, or information contained in such reports or shown or indicated in such drawings.

3. If the Supplementary Conditions do not identify Technical Data, the default definition of Technical Data set forth in Article 1 of the General Conditions will apply.
- B. *Underground Facilities:* Underground Facilities are shown or indicated on the Drawings, pursuant to Paragraph 5.05 of the General Conditions, and not in the drawings referred to in Paragraph 5.02.A of these Instructions to Bidders. Information and data regarding the presence or location of Underground Facilities are not intended to be categorized, identified, or defined as Technical Data.

#### 5.03 *Other Site-related Documents*

- A. No other Site-related documents are available.

#### 5.04 *Site Visit and Testing by Bidders*

- A. Bidder is required to visit the Site and conduct a thorough visual examination of the Site and adjacent areas. During the visit the Bidder must not disturb any ongoing operations at the Site.
- B. Bidders visiting the Site are required to arrange their own transportation to the Site.
- C. All access to the Site other than during a regularly scheduled Site visit must be coordinated through the following Owner or Engineer contact for visiting the Site: **Dave Gutches, DPW Superintendent**. Bidder must conduct the required Site visit during normal working hours.
- D. Bidder is not required to conduct any subsurface testing, or exhaustive investigations of Site conditions.
- E. On request, and to the extent Owner has control over the Site, and schedule permitting, the Owner will provide Bidder general access to the Site to conduct such additional examinations, investigations, explorations, tests, and studies as Bidder deems necessary for preparing and submitting a successful Bid. Owner will not have any obligation to grant such access if doing so is not practical because of existing operations, security or safety concerns, or restraints on Owner's authority regarding the Site. Bidder is responsible for establishing access needed to reach specific selected test sites.
- F. Bidder must comply with all applicable Laws and Regulations regarding excavation and location of utilities, obtain all permits, and comply with all terms and conditions established by Owner or by property Owner's or other entities controlling the Site with respect to schedule, access, existing operations, security, liability insurance, and applicable safety programs.

- G. Bidder must fill all holes and clean up and restore the Site to its former condition upon completion of such explorations, investigations, tests, and studies.

5.05 *Owner's Safety Program*

- A. Site visits and work at the Site may be governed by an Owner safety program. If an Owner safety program exists, it will be noted in the Supplementary Conditions.

5.06 *Other Work at the Site*

- A. Reference is made to Article 8 of the Supplementary Conditions for the identification of the general nature of other work of which Owner is aware (if any) that is to be performed at the Site by Owner or others (such as utilities and other prime contractors) and relates to the Work contemplated by these Bidding Documents. If Owner is party to a written contract for such other work, then on request, Owner will provide to each Bidder access to examine such contracts (other than portions thereof related to price and other confidential matters), if any.

**ARTICLE 6 - BIDDER'S REPRESENTATIONS AND CERTIFICATIONS**

6.01 *Express Representations and Certifications in Bid Form, Agreement*

- A. The Bid Form that each Bidder will submit contains express representations regarding the Bidder's examination of Project documentation, Site visit, and preparation of the Bid, and certifications regarding lack of collusion or fraud in connection with the Bid. Bidder should review these representations and certifications, and assure that Bidder can make the representations and certifications in good faith, before executing and submitting its Bid.
- B. If Bidder is awarded the Contract, Bidder (as Contractor) will make similar express representations and certifications when it executes the Agreement.

**ARTICLE 7 - INTERPRETATIONS AND ADDENDA**

- 7.01 Owner on its own initiative may issue Addenda to clarify, correct, supplement, or change the Bidding Documents.

- 7.02 Bidder shall submit all questions about the meaning or intent of the Bidding Documents to Engineer in writing. Contact information and submittal procedures for such questions are as follows:

- A. **Submit questions via the Bidding Documents Website to the Project Engineer, Donald B. Heck, PE.**

- 7.03 Interpretations or clarifications considered necessary by Engineer in response to such questions will be issued by Addenda delivered to all registered plan holders. Questions received less than seven days prior to the date for opening of Bids may not be answered.

- 7.04 Only responses set forth in an Addendum will be binding. Oral and other interpretations or clarifications will be without legal effect. Responses to questions are not part of the Contract Documents unless set forth in an Addendum that expressly modifies or supplements the Contract Documents.

#### **ARTICLE 8 - BID SECURITY**

- 8.01 A Bid must be accompanied by Bid security made payable to Owner in an amount of **5 Percent** of Bidder's maximum Bid price (determined by adding the base bid and all alternates) and in the form of a Bid bond issued by a surety meeting the requirements of Paragraph 6.01 of the General Conditions. Such Bid bond will be issued in the form included in the Bidding Documents.
- 8.02 The Bid security of the apparent Successful Bidder will be retained until Owner awards the contract to such Bidder, and such Bidder has executed the Contract, furnished the required Contract security, and met the other conditions of the Notice of Award, whereupon the Bid security will be released. If the Successful Bidder fails to execute and deliver the Contract and furnish the required Contract security within 15 days after the Notice of Award, Owner may consider Bidder to be in default, annul the Notice of Award, and the Bid security of that Bidder will be forfeited, in whole in the case of a penal sum bid bond, and to the extent of Owner's damages in the case of a damages-form bond. Such forfeiture will be Owner's exclusive remedy if Bidder defaults.
- 8.03 The Bid security of other Bidders that Owner believes to have a reasonable chance of receiving the award may be retained by Owner until the earlier of 7 days after the Effective Date of the Contract or **60** days after the Bid opening, whereupon Bid security furnished by such Bidders will be released.
- 8.04 Bid security of other Bidders that Owner believes do not have a reasonable chance of receiving the award will be released within 7 days after the Bid opening.

#### **ARTICLE 9 - CONTRACT TIMES**

- 9.01 The number of days within which, or the dates by which, the Work is to be (a) substantially completed and (b) ready for final payment, and (c) Milestones (if any) are to be achieved, are set forth in the Agreement.
- 9.02 Provisions for liquidated damages, if any, for failure to timely attain a Milestone, Substantial Completion, or completion of the Work in readiness for final payment, are set forth in the Agreement.

#### **ARTICLE 10 - SUBSTITUTE AND "OR EQUAL" ITEMS**

- 10.01 The Contract for the Work, as awarded, will be on the basis of materials and equipment specified or described in the Bidding Documents, and those "or-equal" or substitute or materials and equipment subsequently approved by Engineer prior to the submittal of Bids and identified by Addendum. No item of material or equipment will be considered by Engineer as an "or-equal" or substitute unless written request for approval has been submitted by Bidder and has been received by Engineer within 10 days of the issuance of the Advertisement for Bids or invitation to Bidders. Each such request must comply

with the requirements of Paragraphs 7.05 and 7.06 of the General Conditions, and the review of the request will be governed by the principles in those paragraphs. The burden of proof of the merit of the proposed item is upon Bidder. Engineer's decision of approval or disapproval of a proposed item will be final. If Engineer approves any such proposed item, such approval will be set forth in an Addendum issued to all registered Bidders. Bidders cannot rely upon approvals made in any other manner.

- 10.02 All prices that Bidder sets forth in its Bid will be based on the presumption that the Contractor will furnish the materials and equipment specified or described in the Bidding Documents, as supplemented by Addenda. Any assumptions regarding the possibility of post-Bid approvals of "or-equal" or substitution requests are made at Bidder's sole risk.

## **ARTICLE 11 - SUBCONTRACTORS, SUPPLIERS, AND OTHERS**

- 11.01 A Bidder must be prepared to retain specific Subcontractors and Suppliers for the performance of the Work if required to do so by the Bidding Documents or in the Specifications. If a prospective Bidder objects to retaining any such Subcontractor or Supplier and the concern is not relieved by an Addendum, then the prospective Bidder should refrain from submitting a Bid.
- 11.02 The apparent Successful Bidder, and any other Bidder so requested, must submit to Owner a list of the Subcontractors or Suppliers proposed for the following portions of the Work within five days after Bid opening:
- A. Video Survey
  - B. Sewer Cleaning
  - C. Underground
  - D. Concrete
  - E. Asphalt
  - F. Turf Establishment
- 11.03 If requested by Owner, such list must be accompanied by an experience statement with pertinent information regarding similar projects and other evidence of qualification for each such Subcontractor or Supplier. If Owner or Engineer, after due investigation, has reasonable objection to any proposed Subcontractor or Supplier, Owner may, before the Notice of Award is given, request apparent Successful Bidder to submit an acceptable substitute, in which case apparent Successful Bidder will submit a substitute, Bidder's Bid price will be increased (or decreased) by the difference in cost occasioned by such substitution, and Owner may consider such price adjustment in evaluating Bids and making the Contract award.
- 11.04 If apparent Successful Bidder declines to make any such substitution, Owner may award the Contract to the next lowest Bidder that proposes to use acceptable Subcontractors and Suppliers. Declining to make requested substitutions will constitute grounds for forfeiture of the Bid security of any Bidder. Any Subcontractor or Supplier, so listed and against which Owner or Engineer makes no written objection prior to the giving of the

Notice of Award will be deemed acceptable to Owner and Engineer subject to subsequent revocation of such acceptance as provided in Paragraph 7.07 of the General Conditions.

## ARTICLE 12 - PREPARATION OF BID

- 12.01 The Bid Form is included with the Bidding Documents.
- A. All blanks on the Bid Form must be completed in ink and the Bid Form signed in ink. Erasures or alterations must be initialed in ink by the person signing the Bid Form. A Bid price must be indicated for each section, Bid item, alternate, adjustment unit price item, and unit price item listed therein.
  - B. If the Bid Form expressly indicates that submitting pricing on a specific alternate item is optional, and Bidder elects to not furnish pricing for such optional alternate item, then Bidder may enter the words "No Bid" or "Not Applicable."
- 12.02 If Bidder has obtained the Bidding Documents as Electronic Documents, then Bidder shall prepare its Bid on a paper copy of the Bid Form printed from the Electronic Documents version of the Bidding Documents. The printed copy of the Bid Form must be clearly legible, printed on 8½ inch by 11-inch paper and as closely identical in appearance to the Electronic Document version of the Bid Form as may be practical. The Owner reserves the right to accept Bid Forms which nominally vary in appearance from the original paper version of the Bid Form, providing that all required information and submittals are included with the Bid.
- 12.03 A Bid by a corporation must be executed in the corporate name by a corporate officer (whose title must appear under the signature), accompanied by evidence of authority to sign. The corporate address and state of incorporation must be shown.
- 12.04 A Bid by a partnership must be executed in the partnership name and signed by a partner (whose title must appear under the signature), accompanied by evidence of authority to sign. The official address of the partnership must be shown.
- 12.05 A Bid by a limited liability company must be executed in the name of the firm by a member or other authorized person and accompanied by evidence of authority to sign. The state of formation of the firm and the official address of the firm must be shown.
- 12.06 A Bid by an individual must show the Bidder's name and official address.
- 12.07 A Bid by a joint venture must be executed by an authorized representative of each joint venturer in the manner indicated on the Bid Form. The joint venture must have been formally established prior to submittal of a Bid, and the official address of the joint venture must be shown.
- 12.08 All names must be printed in ink below the signatures.
- 12.09 The Bid must contain an acknowledgment of receipt of all Addenda, the numbers of which must be filled in on the Bid Form.

- 12.10 Postal and e-mail addresses and telephone number for communications regarding the Bid must be shown.
- 12.11 The Bid must contain evidence of Bidder's authority to do business in the state where the Project is located, or Bidder must certify in writing that it will obtain such authority within the time for acceptance of Bids and attach such certification to the Bid.
- 12.12 If Bidder is required to be licensed to submit a Bid or perform the Work in the state where the Project is located, the Bid must contain evidence of Bidder's licensure, or Bidder must certify in writing that it will obtain such licensure within the time for acceptance of Bids and attach such certification to the Bid. Bidder's state contractor license number, if any, must also be shown on the Bid Form.

### **ARTICLE 13 - BASIS OF BID**

#### **13.01 *Unit Price***

- A. Bidders must submit a Bid on a unit price basis for each item of Work listed in the unit price section of the Bid Form.
- B. The "Bid Price" (sometimes referred to as the extended price) for each unit price Bid item will be the product of the "Estimated Quantity", which Owner or its representative has set forth in the Bid Form, for the item and the corresponding "Bid Unit Price" offered by the Bidder. The total of all unit price Bid items will be the sum of these "Bid Prices"; such total will be used by Owner for Bid comparison purposes. The final quantities and Contract Price will be determined in accordance with Paragraph 13.03 of the General Conditions.
- C. Discrepancies between the multiplication of units of Work and unit prices will be resolved in favor of the unit prices. Discrepancies between the indicated sum of any column of figures and the correct sum thereof will be resolved in favor of the correct sum.

### **ARTICLE 14 - SUBMITTAL OF BID**

- 14.01 The Bidding Documents include one separate unbound copy of the Bid Form, and, if required, the Bid Bond Form. The unbound copy of the Bid Form is to be completed and submitted with the Bid security and the other documents required to be submitted under the terms of Article 2 of the Bid Form.
- 14.02 A Bid must be received no later than the date and time prescribed and at the place indicated in the Advertisement or invitation to bid and must be enclosed in a plainly marked package with the Project title, and, if applicable, the designated portion of the Project for which the Bid is submitted, the name and address of Bidder, and must be accompanied by the Bid security and other required documents. If a Bid is sent by mail or other delivery system, the sealed envelope containing the Bid must be enclosed in a separate package plainly marked on the outside with the notation "BID ENCLOSED." A mailed Bid must be addressed to the location designated in the Advertisement.

- 14.03 Bids received after the date and time prescribed for the opening of bids, or not submitted at the correct location or in the designated manner, will not be accepted and will be returned to the Bidder unopened.

#### **ARTICLE 15 - MODIFICATION AND WITHDRAWAL OF BID**

- 15.01 An unopened Bid may be withdrawn by an appropriate document duly executed in the same manner that a Bid must be executed and delivered to the place where Bids are to be submitted prior to the date and time for the opening of Bids. Upon receipt of such notice, the unopened Bid will be returned to the Bidder.
- 15.02 If a Bidder wishes to modify its Bid prior to Bid opening, Bidder must withdraw its initial Bid in the manner specified in Paragraph 15.01 and submit a new Bid prior to the date and time for the opening of Bids.
- 15.03 If within 24 hours after Bids are opened any Bidder files a duly signed written notice with Owner and promptly thereafter demonstrates to the reasonable satisfaction of Owner that there was a material and substantial mistake in the preparation of its Bid, the Bidder may withdraw its Bid, and the Bid security will be returned. Thereafter, if the Work is rebid, the Bidder will be disqualified from further bidding on the Work.

#### **ARTICLE 16 - OPENING OF BIDS**

- 16.01 Bids will be opened at the time and place indicated in the advertisement or invitation to bid and, unless obviously non-responsive, read aloud publicly. An abstract of the amounts of the base Bids and major alternates, if any, will be made available to Bidders after the opening of Bids.

#### **ARTICLE 17 - BIDS TO REMAIN SUBJECT TO ACCEPTANCE**

- 17.01 All Bids will remain subject to acceptance for the period of time stated in the Bid Form, but Owner may, in its sole discretion, release any Bid and return the Bid security prior to the end of this period.

#### **ARTICLE 18 - EVALUATION OF BIDS AND AWARD OF CONTRACT**

- 18.01 Owner reserves the right to reject any or all Bids, including without limitation, nonconforming, nonresponsive, unbalanced, or conditional Bids. Owner also reserves the right to waive all minor Bid informalities not involving price, time, or changes in the Work.
- 18.02 Owner will reject the Bid of any Bidder that Owner finds, after reasonable inquiry and evaluation, to not be responsible.
- 18.03 If Bidder purports to add terms or conditions to its Bid, takes exception to any provision of the Bidding Documents, or attempts to alter the contents of the Contract Documents for purposes of the Bid, whether in the Bid itself or in a separate communication to Owner or Engineer, then Owner will reject the Bid as nonresponsive.

- 18.04 If Owner awards the contract for the Work, such award will be to the responsible Bidder submitting the lowest responsive Bid.
- 18.05 In evaluating whether a Bidder is responsible, Owner will consider the qualifications of the Bidder and may consider the qualifications and experience of Subcontractors and Suppliers proposed for those portions of the Work for which the identity of Subcontractors and Suppliers must be submitted as provided in the Bidding Documents.
- 18.06 Owner may conduct such investigations as Owner deems necessary to establish the responsibility, qualifications, and financial ability of Bidders and any proposed Subcontractors or Suppliers.

#### **ARTICLE 19 - BONDS AND INSURANCE**

- 19.01 Article 6 of the General Conditions, as may be modified by the Supplementary Conditions, sets forth Owner's requirements as to performance and payment bonds, other required bonds (if any), and insurance. When the Successful Bidder delivers the executed Agreement to Owner, it must be accompanied by required bonds and insurance documentation.
- 19.02 Article 8, Bid Security, of these Instructions, addresses any requirements for providing bid bonds as part of the bidding process.

#### **ARTICLE 20 - SIGNING OF AGREEMENT**

- 20.01 When Owner issues a Notice of Award to the Successful Bidder, it will be accompanied by the unexecuted counterparts of the Agreement along with the other Contract Documents as identified in the Agreement. Within 15 days thereafter, Successful Bidder must execute and deliver the required number of counterparts of the Agreement and any bonds and insurance documentation required to be delivered by the Contract Documents to Owner. Within 10 days thereafter, Owner will deliver one fully executed counterpart of the Agreement to Successful Bidder, together with printed and electronic copies of the Contract Documents as stated in Paragraph 2.02 of the General Conditions.

#### **ARTICLE 21 - SALES AND USE TAXES**

- 21.01 Owner is **NOT** exempt from **Michigan** state sales and use taxes on materials and equipment to be incorporated in the Work.

#### **ARTICLE 22 - CONTRACTS TO BE ASSIGNED (NOT USED)**

## EJCDC C-410 BID FORM FOR CONSTRUCTION CONTRACT

The terms used in this Bid with initial capital letters have the meanings stated in the Instructions to Bidders, the General Conditions, and the Supplementary Conditions.

### ARTICLE 1 - OWNER AND BIDDER

- 1.01 This Bid is submitted to: **City of Grand Ledge, 310 Greenwood St, Grand Ledge, MI 48837.**
- 1.02 The undersigned Bidder proposes and agrees, if this Bid is accepted, to enter into an Agreement with Owner in the form included in the Bidding Documents to perform all Work as specified or indicated in the Bidding Documents for the prices and within the times indicated in this Bid and in accordance with the other terms and conditions of the Bidding Documents.

### ARTICLE 2 - ATTACHMENTS TO THIS BID

- 2.01 The following documents are submitted with and made a condition of this Bid:
- A. Required Bid security;

### ARTICLE 3 - BASIS OF BID - LUMP SUM AND UNIT PRICES

- 3.01 *Unit Price Bids*
- A. Bidder will perform the Work at the indicated unit prices **found in the attached Schedule of Items:**
- B. Bidder acknowledges that:
- each Bid Unit Price includes an amount considered by Bidder to be adequate to cover Contractor's overhead and profit for each separately identified item, and
  - estimated quantities are not guaranteed, and are solely for the purpose of comparison of Bids, and final payment for all Unit Price Work will be based on actual quantities, determined as provided in the Contract Documents.

### ARTICLE 4 - BASIS OF BID - COST-PLUS FEE (NOT USED)

### ARTICLE 5 - PRICE-PLUS-TIME BID (NOT USED)

### ARTICLE 6 - TIME OF COMPLETION

- 6.01 Bidder agrees that the Work will be substantially complete and will be completed and ready for final payment in accordance with **Paragraph 15.06 of the General Conditions** on or before the dates or within the number of calendar days indicated in the Agreement.
- 6.02 Bidder accepts the provisions of the Agreement as to liquidated damages.

**ARTICLE 7 - BIDDER'S ACKNOWLEDGEMENTS: ACCEPTANCE PERIOD, INSTRUCTIONS, AND RECEIPT OF ADDENDA**

7.01 *Bid Acceptance Period*

- A. This Bid will remain subject to acceptance for **60** days after the Bid opening, or for such longer period of time that Bidder may agree to in writing upon request of Owner.

7.02 *Instructions to Bidders*

- A. Bidder accepts all of the terms and conditions of the Instructions to Bidders, including without limitation those dealing with the disposition of Bid security.

7.03 *Receipt of Addenda*

- A. Bidder hereby acknowledges receipt of the following Addenda: [Add rows as needed. Bidder is to complete table.]

Addendum Number	Addendum Date

**ARTICLE 8 - BIDDER'S REPRESENTATIONS AND CERTIFICATIONS**

8.01 *Bidder's Representations*

- A. In submitting this Bid, Bidder represents the following:
  1. Bidder has examined and carefully studied the Bidding Documents, including Addenda.
  2. Bidder has visited the Site, conducted a thorough visual examination of the Site and adjacent areas, and become familiar with the general, local, and Site conditions that may affect cost, progress, and performance of the Work.
  3. Bidder is familiar with all Laws and Regulations that may affect cost, progress, and performance of the Work.
  4. Bidder has carefully studied the reports of explorations and tests of subsurface conditions at or adjacent to the Site and the drawings of physical conditions relating to existing surface or subsurface structures at the Site that have been identified in the Supplementary Conditions, with respect to the Technical Data in such reports and drawings.
  5. Bidder has carefully studied the reports and drawings relating to Hazardous Environmental Conditions, if any, at or adjacent to the Site that have been identified in the Supplementary Conditions, with respect to Technical Data in

such reports and drawings.

6. Bidder has considered the information known to Bidder itself; information commonly known to contractors doing business in the locality of the Site; information and observations obtained from visits to the Site; the Bidding Documents; and the Technical Data identified in the Supplementary Conditions or by definition, with respect to the effect of such information, observations, and Technical Data on (a) the cost, progress, and performance of the Work; (b) the means, methods, techniques, sequences, and procedures of construction to be employed by Bidder, if selected as Contractor; and (c) Bidder's (Contractor's) safety precautions and programs.
7. Based on the information and observations referred to in the preceding paragraph, Bidder agrees that no further examinations, investigations, explorations, tests, studies, or data are necessary for the performance of the Work at the Contract Price, within the Contract Times, and in accordance with the other terms and conditions of the Contract.
8. Bidder is aware of the general nature of work to be performed by Owner and others at the Site that relates to the Work as indicated in the Bidding Documents.
9. Bidder has given Engineer written notice of all conflicts, errors, ambiguities, or discrepancies that Bidder has discovered in the Bidding Documents, and of discrepancies between Site conditions and the Contract Documents, and the written resolution thereof by Engineer is acceptable to Contractor.
10. The Bidding Documents are generally sufficient to indicate and convey understanding of all terms and conditions for performance and furnishing of the Work.
11. The submission of this Bid constitutes an incontrovertible representation by Bidder that without exception the Bid and all prices in the Bid are premised upon performing and furnishing the Work required by the Bidding Documents.

#### 8.02 *Bidder's Certifications*

A. The Bidder certifies the following:

1. This Bid is genuine and not made in the interest of or on behalf of any undisclosed individual or entity and is not submitted in conformity with any collusive agreement or rules of any group, association, organization, or corporation.
2. Bidder has not directly or indirectly induced or solicited any other Bidder to submit a false or sham Bid.
3. Bidder has not solicited or induced any individual or entity to refrain from bidding.
4. Bidder has not engaged in corrupt, fraudulent, collusive, or coercive practices in competing for the Contract. For the purposes of this Paragraph 8.02.A:

- a. Corrupt practice means the offering, giving, receiving, or soliciting of anything of value likely to influence the action of a public official in the bidding process.
- b. Fraudulent practice means an intentional misrepresentation of facts made (a) to influence the bidding process to the detriment of Owner, (b) to establish bid prices at artificial non-competitive levels, or (c) to deprive Owner of the benefits of free and open competition.
- c. Collusive practice means a scheme or arrangement between two or more Bidders, with or without the knowledge of Owner, a purpose of which is to establish bid prices at artificial, non-competitive levels.
- d. Coercive practice means harming or threatening to harm, directly or indirectly, persons or their property to influence their participation in the bidding process or affect the execution of the Contract.

BIDDER hereby submits this Bid as set forth above:

Bidder:

By: \_\_\_\_\_  
*(typed or printed name of organization)*

Name: \_\_\_\_\_  
*(Individual's signature)*

Title: \_\_\_\_\_  
*(typed or printed)*

Date: \_\_\_\_\_  
*(typed or printed)*

*If Bidder is a corporation, a partnership, or a joint venture, attach evidence of authority to sign.*

Attest: \_\_\_\_\_  
*(Individual's signature)*

Name: \_\_\_\_\_  
*(typed or printed)*

Title: \_\_\_\_\_  
*(typed or printed)*

Date: \_\_\_\_\_  
*(typed or printed)*

Address for giving notices:

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\_\_\_\_\_

*(typed or printed)*

Bidder's Contact:

*(typed or printed)*

Name:

\_\_\_\_\_

*(typed or printed)*

Title:

\_\_\_\_\_

*(typed or printed)*

Phone:

\_\_\_\_\_

Email:

\_\_\_\_\_

Address:

\_\_\_\_\_

*(typed or printed)*

Bidder's Contractor License No.: (If applicable) \_\_\_\_\_

**EJCDC C-430 BID BOND PENAL SUM FORM**

**Bidder**

Name: \_\_\_\_\_  
Address (*principal place of business*): \_\_\_\_\_

**Surety**

Name: \_\_\_\_\_  
Address (*principal place of business*): \_\_\_\_\_

**Owner**

Name: **City of Grand Ledge**  
Address (*principal place of business*):  
**310 Greenwood St, Grand Ledge, MI 48837**

**Bid**

Project (*name and location*):  
**City of Grand Ledge - River and Harrison  
Streets Improvements**  
Bid Due Date: \_\_\_\_\_

**Bond**

Penal Sum: **5 Percent**  
Date of Bond: \_\_\_\_\_

Surety and Bidder, intending to be legally bound hereby, subject to the terms set forth in this Bid Bond, do each cause this Bid Bond to be duly executed by an authorized officer, agent, or representative.

**Bidder**

\_\_\_\_\_  
(*Full formal name of bidder*)

By:

\_\_\_\_\_  
(*Signature*)

Name:

\_\_\_\_\_  
(*Printed or typed*)

Title:

\_\_\_\_\_

Attest:

\_\_\_\_\_  
(*Signature*)

Name:

\_\_\_\_\_  
(*Printed or typed*)

Title:

\_\_\_\_\_

**Surety**

\_\_\_\_\_  
(*Full formal name of Surety*)(*corporate seal*)

By:

\_\_\_\_\_  
(*Signature*)(*Attach Power of Attorney*)

Name:

\_\_\_\_\_  
(*Printed or typed*)

Title:

\_\_\_\_\_

Attest:

\_\_\_\_\_  
(*Signature*)

Name:

\_\_\_\_\_  
(*Printed or typed*)

Title:

\_\_\_\_\_

Notes: (1) Note: Addresses are to be used for giving any required notice. (2) Provide execution by any additional parties, such as joint venturers, if necessary.

- 1.01 Bidder and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors, and assigns to pay to Owner upon default of Bidder the penal sum set forth on the face of this Bond. Payment of the penal sum is the extent of Bidder's and Surety's liability. Recovery of such penal sum under the terms of this Bond will be Owner's sole and exclusive remedy upon default of Bidder.
- 1.02 Default of Bidder occurs upon the failure of Bidder to deliver within the time required by the Bidding Documents (or any extension thereof agreed to in writing by Owner) the executed Agreement required by the Bidding Documents and any performance and payment bonds required by the Bidding Documents.
- 1.03 This obligation will be null and void if:
  - A. Owner accepts Bidder's Bid and Bidder delivers within the time required by the Bidding Documents (or any extension thereof agreed to in writing by Owner) the executed Agreement required by the Bidding Documents and any performance and payment bonds required by the Bidding Documents, or
  - B. All Bids are rejected by Owner, or
  - C. Owner fails to issue a Notice of Award to Bidder within the time specified in the Bidding Documents (or any extension thereof agreed to in writing by Bidder and, if applicable, consented to by Surety when required by Paragraph 1.05 hereof).
- 1.04 Payment under this Bond will be due and payable upon default of Bidder and within 30 calendar days after receipt by Bidder and Surety of written notice of default from Owner, which notice will be given with reasonable promptness, identifying this Bond and the Project and including a statement of the amount due.
- 1.05 Surety waives notice of any and all defenses based on or arising out of any time extension to issue Notice of Award agreed to in writing by Owner and Bidder, provided that the total time for issuing Notice of Award including extensions does not in the aggregate exceed 120 days from the Bid due date without Surety's written consent.
- 1.06 No suit or action will be commenced under this Bond prior to 30 calendar days after the notice of default required in Paragraph 1.04 above is received by Bidder and Surety, and in no case later than one year after the Bid due date.
- 1.07 Any suit or action under this Bond will be commenced only in a court of competent jurisdiction located in the state in which the Project is located.
- 1.08 Notices required hereunder must be in writing and sent to Bidder and Surety at their respective addresses shown on the face of this Bond. Such notices may be sent by personal delivery, commercial courier, or by United States Postal Service registered or certified mail, return receipt requested, postage pre-paid, and will be deemed to be effective upon receipt by the party concerned.

- 1.09 Surety shall cause to be attached to this Bond a current and effective Power of Attorney evidencing the authority of the officer, agent, or representative who executed this Bond on behalf of Surety to execute, seal, and deliver such Bond and bind the Surety thereby.
- 1.10 This Bond is intended to conform to all applicable statutory requirements. Any applicable requirement of any applicable statute that has been omitted from this Bond will be deemed to be included herein as if set forth at length. If any provision of this Bond conflicts with any applicable statute, then the provision of said statute governs and the remainder of this Bond that is not in conflict therewith continues in full force and effect.
- 1.11 The term "Bid" as used herein includes a Bid, offer, or proposal as applicable.

EJCDC C-510 NOTICE OF AWARD

Date of Issuance:

Owner: **City of Grand Ledge**

Owner's Project No.: N/A

Engineer: **Wolverine Engineers & Surveyors, Inc**

Engineer's Project No.: **24-0013**

Project: **City of Grand Ledge - River and Harrison Streets Improvements**

Contract Name:

Bidder: \_\_\_\_\_

Bidder's Address: \_\_\_\_\_

You are notified that Owner has accepted your Bid dated **July 31, 2024** for the above Contract, and that you are the Successful Bidder and are awarded a Contract for:

**Approximately 0.237 miles of road reconstruction including +/-735 tons of HMA pavement, +/-1200' concrete curb and gutter, +/-1100 sft sidewalk & ramps, +/-316' storm sewer, and miscellaneous pavement markings.**

The Contract Price of the awarded Contract is **\$TBD**. Contract Price is subject to adjustment based on the provisions of the Contract, including but not limited to those governing changes, Unit Price Work, and Work performed on a cost-plus-fee basis, as applicable.

**Five (5)** unexecuted counterparts of the Agreement accompany this Notice of Award, and one copy of the Contract Documents accompanies this Notice of Award, or has been transmitted or made available to Bidder electronically.

You must comply with the following conditions precedent within 15 days of the date of receipt of this Notice of Award:

Deliver to Owner **Five (5)** counterparts of the Agreement, signed by Bidder (as Contractor).

Deliver with the signed Agreement(s) the Contract security (such as required performance and payment bonds) and insurance documentation, as specified in the Instructions to Bidders and in the General Conditions, Articles 2 and 6.

Failure to comply with these conditions within the time specified will entitle Owner to consider you in default, annul this Notice of Award, and declare your Bid security forfeited.

Within 10 days after you comply with the above conditions, Owner will return to you one fully signed counterpart of the Agreement, together with any additional copies of the Contract Documents as indicated in Paragraph 2.02 of the General Conditions.

Owner: **City of Grand Ledge**

By (signature): \_\_\_\_\_

Name (printed): \_\_\_\_\_

Title:

Copy:

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**Wolverine Engineers & Surveyors, Inc**

**EJCDC C-520 AGREEMENT BETWEEN OWNER AND CONTRACTOR FOR  
CONSTRUCTION CONTRACT (STIPULATED PRICE)**

This Agreement is by and between **City of Grand Ledge** ("Owner") and **Contractor Name** ("Contractor").

Terms used in this Agreement have the meanings stated in the General Conditions and the Supplementary Conditions.

Owner and Contractor hereby agree as follows:

**ARTICLE 1 - WORK**

1.01 Contractor shall complete all Work as specified or indicated in the Contract Documents. The Work is generally described as follows: **Approximately 0.237 miles of road reconstruction including +/-735 tons of HMA pavement, +/-1200' concrete curb and gutter, +/-1100 sft sidewalk & ramps, +/-316' storm sewer, and miscellaneous pavement markings.**

**ARTICLE 2 - THE PROJECT**

2.01 The Project, of which the Work under the Contract Documents is a part, is generally described as follows: **City of Grand Ledge - River and Harrison Streets Improvements.**

**ARTICLE 3 - ENGINEER**

3.01 The Owner has retained **Wolverine Engineers & Surveyors, Inc** ("Engineer") to act as Owner's representative, assume all duties and responsibilities of Engineer, and have the rights and authority assigned to Engineer in the Contract.

3.02 The part of the Project that pertains to the Work has been designed by **Wolverine Engineers & Surveyors, Inc.**

**ARTICLE 4 - CONTRACT TIMES**

4.01 *Time is of the Essence*

A. All time limits for Milestones, if any, Substantial Completion, and completion and readiness for final payment as stated in the Contract Documents are of the essence of the Contract.

4.02 *Contract Times: Dates*

A. The Work will be substantially complete on or before **the date listed in the Progress Clause**, and completed and ready for final payment in accordance with Paragraph 15.06 of the General Conditions on or before **the date listed in the Progress Clause**.

4.03 *Liquidated Damages*

- A. Contractor and Owner recognize that time is of the essence as stated in Paragraph 4.01 above and that Owner will suffer financial and other losses if the Work is not completed and Milestones not achieved within the Contract Times, as duly modified. The parties also recognize the delays, expense, and difficulties involved in proving, in a legal or arbitration proceeding, the actual loss suffered by Owner if the Work is not completed on time. Accordingly, instead of requiring any such proof, Owner and Contractor agree that as liquidated damages for delay (but not as a penalty):
1. Substantial Completion: Contractor shall pay Owner **\$1,500** for each day that expires after the time (as duly adjusted pursuant to the Contract) specified above for Substantial Completion, until the Work is substantially complete.
  2. Completion of Remaining Work: After Substantial Completion, if Contractor shall neglect, refuse, or fail to complete the remaining Work within the Contract Times (as duly adjusted pursuant to the Contract) for completion and readiness for final payment, Contractor shall pay Owner **\$1,500** for each day that expires after such time until the Work is completed and ready for final payment.
  3. Liquidated damages for failing to timely attain Milestones, Substantial Completion, and final completion are not additive, and will not be imposed concurrently.
- B. If Owner recovers liquidated damages for a delay in completion by Contractor, then such liquidated damages are Owner's sole and exclusive remedy for such delay, and Owner is precluded from recovering any other damages, whether actual, direct, excess, or consequential, for such delay, except for special damages (if any) specified in this Agreement.

4.04 *Special Damages*

- A. Contractor shall reimburse Owner (1) for any fines or penalties imposed on Owner as a direct result of the Contractor's failure to attain Substantial Completion according to the Contract Times, and (2) for the actual costs reasonably incurred by Owner for engineering, construction observation, inspection, and administrative services needed after the time specified in Paragraph 4.02 for Substantial Completion (as duly adjusted pursuant to the Contract), until the Work is substantially complete.
- B. After Contractor achieves Substantial Completion, if Contractor shall neglect, refuse, or fail to complete the remaining Work within the Contract Times, Contractor shall reimburse Owner for the actual costs reasonably incurred by Owner for engineering, construction observation, inspection, and administrative services needed after the time specified in Paragraph 4.02 for Work to be completed and ready for final payment (as duly adjusted pursuant to the Contract), until the Work is completed and ready for final payment.

- C. The special damages imposed in this paragraph are supplemental to any liquidated damages for delayed completion established in this Agreement.

## ARTICLE 5 - CONTRACT PRICE

5.01 Owner shall pay Contractor for completion of the Work in accordance with the Contract Documents, the amounts that follow, subject to adjustment under the Contract:

- A. For all Work, at the prices stated in Contractor's Bid, attached hereto **as the Schedule of Items**.

## ARTICLE 6 - PAYMENT PROCEDURES

6.01 Submittal and Processing of Payments

- A. Contractor shall submit Applications for Payment in accordance with Article 15 of the General Conditions. Applications for Payment will be processed by Engineer as provided in the General Conditions.

6.02 Progress Payments; Retainage

- A. Owner shall make progress payments on the basis of Contractor's Applications for Payment on or about the **15th** day of each month during performance of the Work as provided in Paragraph 6.02.A.1 below, provided that such Applications for Payment have been submitted in a timely manner and otherwise meet the requirements of the Contract. All such payments will be measured by the Schedule of Values established as provided in the General Conditions (and in the case of Unit Price Work based on the number of units completed) or, in the event there is no Schedule of Values, as provided elsewhere in the Contract.

- 1. Prior to Substantial Completion, progress payments will be made in an amount equal to the percentage indicated below but, in each case, less the aggregate of payments previously made and less such amounts as Owner may withhold, including but not limited to liquidated damages, in accordance with the Contract.

- a. 95 percent of the value of the Work completed (with the balance being retainage).
- b. 95 percent of cost of materials and equipment not incorporated in the Work (with the balance being retainage).

- B. Upon Substantial Completion, Owner shall pay an amount sufficient to increase total payments to Contractor to **100** percent of the Work completed, less such amounts set off by Owner pursuant to Paragraph 15.01.E of the General Conditions, and less **200** percent of Engineer's estimate of the value of Work to be completed or corrected as shown on the punch list of items to be completed or corrected prior to final payment.

6.03 *Final Payment*

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- A. Upon final completion and acceptance of the Work, Owner shall pay the remainder of the Contract Price in accordance with Paragraph 15.06 of the General Conditions.

6.04 *Consent of Surety*

- A. Owner will not make final payment, or return or release retainage at Substantial Completion or any other time, unless Contractor submits written consent of the surety to such payment, return, or release.

6.05 *Interest*

- A. All amounts not paid when due will bear interest at the rate of \_\_\_\_\_ percent per annum.

**ARTICLE 7 - CONTRACT DOCUMENTS**

7.01 *Contents*

- A. The Contract Documents consist of all of the following:
  - 1. This Agreement.
  - 2. Bonds:
    - a. Performance bond (together with power of attorney).
    - b. Payment bond (together with power of attorney).
  - 3. General Conditions.
  - 4. Supplementary Conditions.
  - 5. Specifications as listed in the table of contents of the project manual (copy of list attached).
  - 6. Drawings (not attached but incorporated by reference) consisting of **10** sheets with each sheet bearing the following general title: **City of Grand Ledge - River and Harrison Streets Improvements**
  - 7. Addenda (numbers \_\_\_\_\_ to \_\_\_\_\_, inclusive).
  - 8. The following which may be delivered or issued on or after the Effective Date of the Contract and are not attached hereto:
    - a. Notice to Proceed.
    - b. Work Change Directives.
    - c. Change Orders.

- d. Field Orders.
  - e. Warranty Bond, if any.
- B. The Contract Documents listed in Paragraph 7.01.A are attached to this Agreement (except as expressly noted otherwise above).
- C. There are no Contract Documents other than those listed above in this Article 7.
- D. The Contract Documents may only be amended, modified, or supplemented as provided in the Contract.

## **ARTICLE 8 - REPRESENTATIONS, CERTIFICATIONS, AND STIPULATIONS**

### **8.01 Contractor's Representations**

- A. In order to induce Owner to enter into this Contract, Contractor makes the following representations:
1. Contractor has examined and carefully studied the Contract Documents, including Addenda.
  2. Contractor has visited the Site, conducted a thorough visual examination of the Site and adjacent areas, and become familiar with the general, local, and Site conditions that may affect cost, progress, and performance of the Work.
  3. Contractor is familiar with all Laws and Regulations that may affect cost, progress, and performance of the Work.
  4. Contractor has carefully studied the reports of explorations and tests of subsurface conditions at or adjacent to the Site and the drawings of physical conditions relating to existing surface or subsurface structures at the Site that have been identified in the Supplementary Conditions, with respect to the Technical Data in such reports and drawings.
  5. Contractor has carefully studied the reports and drawings relating to Hazardous Environmental Conditions, if any, at or adjacent to the Site that have been identified in the Supplementary Conditions, with respect to Technical Data in such reports and drawings.
  6. Contractor has considered the information known to Contractor itself; information commonly known to contractors doing business in the locality of the Site; information and observations obtained from visits to the Site; the Contract Documents; and the Technical Data identified in the Supplementary Conditions or by definition, with respect to the effect of such information, observations, and Technical Data on (a) the cost, progress, and performance of the Work; (b) the means, methods, techniques, sequences, and procedures of construction to be employed by Contractor; and (c) Contractor's safety precautions and programs.

7. Based on the information and observations referred to in the preceding paragraph, Contractor agrees that no further examinations, investigations, explorations, tests, studies, or data are necessary for the performance of the Work at the Contract Price, within the Contract Times, and in accordance with the other terms and conditions of the Contract.
8. Contractor is aware of the general nature of work to be performed by Owner and others at the Site that relates to the Work as indicated in the Contract Documents.
9. Contractor has given Engineer written notice of all conflicts, errors, ambiguities, or discrepancies that Contractor has discovered in the Contract Documents, and of discrepancies between Site conditions and the Contract Documents, and the written resolution thereof by Engineer is acceptable to Contractor.
10. The Contract Documents are generally sufficient to indicate and convey understanding of all terms and conditions for performance and furnishing of the Work.
11. Contractor's entry into this Contract constitutes an incontrovertible representation by Contractor that without exception all prices in the Agreement are premised upon performing and furnishing the Work required by the Contract Documents.

#### 8.02 *Contractor's Certifications*

- A. Contractor certifies that it has not engaged in corrupt, fraudulent, collusive, or coercive practices in competing for or in executing the Contract. For the purposes of this Paragraph 8.02:
  1. "corrupt practice" means the offering, giving, receiving, or soliciting of anything of value likely to influence the action of a public official in the bidding process or in the Contract execution;
  2. "fraudulent practice" means an intentional misrepresentation of facts made (a) to influence the bidding process or the execution of the Contract to the detriment of Owner, (b) to establish Bid or Contract prices at artificial non-competitive levels, or (c) to deprive Owner of the benefits of free and open competition;
  3. "collusive practice" means a scheme or arrangement between two or more Bidders, with or without the knowledge of Owner, a purpose of which is to establish Bid prices at artificial, non-competitive levels; and
  4. "coercive practice" means harming or threatening to harm, directly or indirectly, persons or their property to influence their participation in the bidding process or affect the execution of the Contract.

#### 8.03 Standard General Conditions

- A. Owner stipulates that if the General Conditions that are made a part of this Contract are EJCDC® C-700, Standard General Conditions for the Construction Contract (2018), published by the Engineers Joint Contract Documents Committee, and if Owner is the party that has furnished said General Conditions, then Owner has plainly shown all modifications to the standard wording of such published document to the Contractor, through a process such as highlighting or “track changes” (redline/strikeout), or in the Supplementary Conditions.

IN WITNESS WHEREOF, Owner and Contractor have signed this Agreement.

This Agreement will be effective on \_\_\_\_\_ (which is the Effective Date of the Contract).

Owner:

**City of Grand Ledge**  
*(typed or printed name of organization) \**

By:

\_\_\_\_\_  
*(Individual's signature)*

Date:

\_\_\_\_\_  
*(date signed)*

Name:

\_\_\_\_\_  
*(typed or printed)*

Title:

\_\_\_\_\_  
*(typed or printed)*

Attest:

\_\_\_\_\_  
*(Individual's signature)*

Title:

\_\_\_\_\_  
*(typed or printed)*

Address for giving notices:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Designated Representative:Name:

\_\_\_\_\_  
*(typed or printed)*

Title:

\_\_\_\_\_  
*(typed or printed)*

Address:

Contractor:

**Contractor Name**  
*(typed or printed name of organization) \*\**

By:

\_\_\_\_\_  
*(Individual's signature)*

Date:

\_\_\_\_\_  
*(date signed)*

Name:

\_\_\_\_\_  
*(typed or printed)*

Title:

\_\_\_\_\_  
*(typed or printed)*

Attest:

\_\_\_\_\_  
*(Individual's signature)*

Title:

\_\_\_\_\_  
*(typed or printed)*

Address for giving notices:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Designated Representative:Name:

\_\_\_\_\_  
*(typed or printed)*

Title:

\_\_\_\_\_  
*(typed or printed)*

Address:



**310 Greenwood Street**  
Grand Ledge, Michigan 48837

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Phone:

\_\_\_\_\_  
\_\_\_\_\_

Email:

Phone:

\_\_\_\_\_  
\_\_\_\_\_

Email:

License No.

\_\_\_\_\_  
*(where applicable)*

State:

\_\_\_\_\_

*\* If **City of Grand Ledge** is a corporation, a partnership, or a joint venture, attach evidence of authority to sign. If **City of Grand Ledge** is a public body, attach evidence of authority to sign and resolution or other documents authorizing execution of this Agreement. \*\* If **Contractor Name** is a corporation, a partnership, or a joint venture, attach evidence of authority to sign.*



## EJCDC C-610 PERFORMANCE BOND

**Contractor**

Name: \_\_\_\_\_

Address (*principal place of business*):  
\_\_\_\_\_  
\_\_\_\_\_**Surety**

Name: \_\_\_\_\_

Address (*principal place of business*):  
\_\_\_\_\_  
\_\_\_\_\_**Owner**Name: **City of Grand Ledge**Mailing Address (*principal place of business*):**310 Greenwood St, Grand Ledge, MI 48837****Contract**Description (*name and location*):**City of Grand Ledge - River and Harrison  
Streets Improvements**

Contract Price: \$ \_\_\_\_\_

Effective Date of Contract: \_\_\_\_\_

**Bond**

Bond Amount: \$ \_\_\_\_\_

Date of Bond: \_\_\_\_\_

*(Date of Bond cannot be earlier than Effective Date of Contract)*Modifications to this Bond form: **See Paragraph 1.16**

Surety and Contractor, intending to be legally bound hereby, subject to the terms set forth in this Performance Bond, do each cause this Performance Bond to be duly executed by an authorized officer, agent, or representative.

**Contractor**\_\_\_\_\_  
*(Full formal name of Contractor)*

By:

\_\_\_\_\_  
*(Signature)*

Name:

\_\_\_\_\_  
*(Printed or typed)*

Title:

\_\_\_\_\_

Attest:

\_\_\_\_\_  
*(Signature)*

Name:

\_\_\_\_\_  
*(Printed or typed)***Surety**\_\_\_\_\_  
*(Full formal name of Surety)(corporate seal)*

By:

\_\_\_\_\_  
*(Signature)(Attach Power of Attorney)*

Name:

\_\_\_\_\_  
*(Printed or typed)*

Title:

\_\_\_\_\_

Attest:

\_\_\_\_\_  
*(Signature)*

Name:

\_\_\_\_\_  
*(Printed or typed)*

Title:

Title:

*Notes: (1) Provide supplemental execution by any additional parties, such as joint venturers. (2) Any singular reference to Contractor, Surety, Owner or other party is considered plural where applicable.*

- 1.01 The Contractor and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors, and assigns to the Owner for the performance of the Construction Contract, which is incorporated herein by reference.
- 1.02 If the Contractor performs the Construction Contract, the Surety and the Contractor shall have no obligation under this Bond, except when applicable to participate in a conference as provided in Paragraph 1.03.
- 1.03 If there is no Owner Default under the Construction Contract, the Surety's obligation under this Bond will arise after:
  - A. The Owner first provides notice to the Contractor and the Surety that the Owner is considering declaring a Contractor Default. Such notice may indicate whether the Owner is requesting a conference among the Owner, Contractor, and Surety to discuss the Contractor's performance. If the Owner does not request a conference, the Surety may, within five (5) business days after receipt of the Owner's notice, request such a conference. If the Surety timely requests a conference, the Owner shall attend. Unless the Owner agrees otherwise, any conference requested under this Paragraph 1.03.A will be held within ten (10) business days of the Surety's receipt of the Owner's notice. If the Owner, the Contractor, and the Surety agree, the Contractor shall be allowed a reasonable time to perform the Construction Contract, but such an agreement does not waive the Owner's right, if any, subsequently to declare a Contractor Default;
  - B. The Owner declares a Contractor Default, terminates the Construction Contract and notifies the Surety; and
  - C. The Owner has agreed to pay the Balance of the Contract Price in accordance with the terms of the Construction Contract to the Surety or to a contractor selected to perform the Construction Contract.
- 1.04 Failure on the part of the Owner to comply with the notice requirement in Paragraph 1.03.A does not constitute a failure to comply with a condition precedent to the Surety's obligations, or release the Surety from its obligations, except to the extent the Surety demonstrates actual prejudice.
- 1.05 When the Owner has satisfied the conditions of Paragraph 1.03, the Surety shall promptly and at the Surety's expense take one of the following actions:
  - A. Arrange for the Contractor, with the consent of the Owner, to perform and complete the Construction Contract;
  - B. Undertake to perform and complete the Construction Contract itself, through its agents or independent contractors;

- C. Obtain bids or negotiated proposals from qualified contractors acceptable to the Owner for a contract for performance and completion of the Construction Contract, arrange for a contract to be prepared for execution by the Owner and a contractor selected with the Owners concurrence, to be secured with performance and payment bonds executed by a qualified surety equivalent to the bonds issued on the Construction Contract, and pay to the Owner the amount of damages as described in Paragraph 1.07 in excess of the Balance of the Contract Price incurred by the Owner as a result of the Contractor Default; or
  - D. Waive its right to perform and complete, arrange for completion, or obtain a new contractor, and with reasonable promptness under the circumstances:
    - 1. After investigation, determine the amount for which it may be liable to the Owner and, as soon as practicable after the amount is determined, make payment to the Owner; or
    - 2. Deny liability in whole or in part and notify the Owner, citing the reasons for denial.
- 1.06 If the Surety does not proceed as provided in Paragraph 1.05 with reasonable promptness, the Surety shall be deemed to be in default on this Bond seven days after receipt of an additional written notice from the Owner to the Surety demanding that the Surety perform its obligations under this Bond, and the Owner shall be entitled to enforce any remedy available to the Owner. If the Surety proceeds as provided in Paragraph 1.05.D, and the Owner refuses the payment, or the Surety has denied liability, in whole or in part, without further notice, the Owner shall be entitled to enforce any remedy available to the Owner.
- 1.07 If the Surety elects to act under Paragraph 1.05.A, 1.05.B, or 1.05.C, then the responsibilities of the Surety to the Owner will not be greater than those of the Contractor under the Construction Contract, and the responsibilities of the Owner to the Surety will not be greater than those of the Owner under the Construction Contract. Subject to the commitment by the Owner to pay the Balance of the Contract Price, the Surety is obligated, without duplication for:
- A. the responsibilities of the Contractor for correction of defective work and completion of the Construction Contract;
  - B. additional legal, design professional, and delay costs resulting from the Contractor's Default, and resulting from the actions or failure to act of the Surety under Paragraph 1.05; and
  - C. liquidated damages, or if no liquidated damages are specified in the Construction Contract, actual damages caused by delayed performance or non-performance of the Contractor.
- 1.08 If the Surety elects to act under Paragraph 1.05.A, 1.05.C, or 1.05.D, the Surety's liability is limited to the amount of this Bond.
- 1.09 The Surety shall not be liable to the Owner or others for obligations of the Contractor that are unrelated to the Construction Contract, and the Balance of the Contract Price

will not be reduced or set off on account of any such unrelated obligations. No right of action will accrue on this Bond to any person or entity other than the Owner or its heirs, executors, administrators, successors, and assigns.

- 1.10 The Surety hereby waives notice of any change, including changes of time, to the Construction Contract or to related subcontracts, purchase orders, and other obligations.
- 1.11 Any proceeding, legal or equitable, under this Bond must be instituted in any court of competent jurisdiction in the location in which the work or part of the work is located and must be instituted within two years after a declaration of Contractor Default or within two years after the Contractor ceased working or within two years after the Surety refuses or fails to perform its obligations under this Bond, whichever occurs first. If the provisions of this paragraph are void or prohibited by law, the minimum periods of limitations available to sureties as a defense in the jurisdiction of the suit will be applicable.
- 1.12 Notice to the Surety, the Owner, or the Contractor must be mailed or delivered to the address shown on the page on which their signature appears.
- 1.13 When this Bond has been furnished to comply with a statutory or other legal requirement in the location where the construction was to be performed, any provision in this Bond conflicting with said statutory or legal requirement will be deemed deleted therefrom and provisions conforming to such statutory or other legal requirement will be deemed incorporated herein. When so furnished, the intent is that this Bond will be construed as a statutory bond and not as a common law bond.
- 1.14 Definitions
  - A. *Balance of the Contract Price* - The total amount payable by the Owner to the Contractor under the Construction Contract after all proper adjustments have been made including allowance for the Contractor for any amounts received or to be received by the Owner in settlement of insurance or other claims for damages to which the Contractor is entitled, reduced by all valid and proper payments made to or on behalf of the Contractor under the Construction Contract.
  - B. *Construction Contract* - The agreement between the Owner and Contractor identified on the cover page, including all Contract Documents and changes made to the agreement and the Contract Documents.
  - C. *Contractor Default* - Failure of the Contractor, which has not been remedied or waived, to perform or otherwise to comply with a material term of the Construction Contract.
  - D. *Owner Default* - Failure of the Owner, which has not been remedied or waived, to pay the Contractor as required under the Construction Contract or to perform and complete or comply with the other material terms of the Construction Contract.
  - E. *Contract Documents* - All the documents that comprise the agreement between the Owner and Contractor.
- 1.15 If this Bond is issued for an agreement between a contractor and subcontractor, the term Contractor in this Bond will be deemed to be Subcontractor and the term Owner will be deemed to be Contractor.

1.16 Modifications to this Bond are as follows: **list modifications below.**

EJCDC C-612 WARRANTY BOND

**Contractor**

Name: \_\_\_\_\_  
Address (*principal place of business*): \_\_\_\_\_  
\_\_\_\_\_

**Surety**

Name: \_\_\_\_\_  
Address (*principal place of business*): \_\_\_\_\_  
\_\_\_\_\_

**Owner**

Name: **City of Grand Ledge**  
Mailing Address (*principal place of business*): **310 Greenwood St, Grand Ledge, MI 48837**

**Contract**

Description (*name and location*): **City of Grand Ledge - River and Harrison Streets Improvements**  
Contract Price: \$ \_\_\_\_\_  
Effective Date of Contract: \_\_\_\_\_

**Bond**

Bond Amount: \$ \_\_\_\_\_  
Date of Bond: \_\_\_\_\_  
*(Date of Bond cannot be earlier than Effective Date of Contract)*

Bond Period: Commencing 364 days after Substantial Completion of the Work under the Construction Contract, and continuing until 2 years after such Substantial Completion.

Modifications to this Bond form: **See Paragraph 1.09**

Surety and Contractor, intending to be legally bound hereby, subject to the terms set forth herein, do each cause this Warranty Bond to be duly executed by an authorized officer, agent, or representative.

**Contractor**

\_\_\_\_\_  
*(Full formal name of Contractor)*  
By: \_\_\_\_\_  
*(Signature)*  
Name: \_\_\_\_\_  
*(Printed or typed)*  
Title: \_\_\_\_\_  
Attest: \_\_\_\_\_  
*(Signature)*  
Name: \_\_\_\_\_  
*(Printed or typed)*

**Surety**

\_\_\_\_\_  
*(Full formal name of Surety)(corporate seal)*  
By: \_\_\_\_\_  
*(Signature)(Attach Power of Attorney)*  
Name: \_\_\_\_\_  
*(Printed or typed)*  
Title: \_\_\_\_\_  
Attest: \_\_\_\_\_  
*(Signature)*  
Name: \_\_\_\_\_  
*(Printed or typed)*

Title:

Title:

*Notes: (1) Provide supplemental execution by any additional parties, such as joint venturers. (2) Any singular reference to Contractor, Surety, Owner or other party is considered plural where applicable.*

- 1.01 The Contractor and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors, and assigns to the Owner for the performance of the Construction Contract's Correction Period Obligations. The Construction Contract is incorporated herein by reference.
- 1.02 If the Contractor performs the Correction Period Obligations, the Surety and the Contractor shall have no obligation under this Warranty Bond.
- 1.03 If Owner gives written notice to Contractor and Surety during the Bond Period of Contractor's obligation under the Correction Period Obligations, and Contractor does not fulfill such obligation, then Surety shall be responsible for fulfillment of such Correction Period Obligations. Surety shall either fulfill the Correction Period Obligations itself, through its agents or contractors, or, in the alternative, Surety may waive the right to fulfill the Correction Period Obligations itself, and reimburse the Owner for all resulting costs incurred by Owner in performing Contractor's Correction Period Obligations, including but not limited to correction, removal, replacement, and repair costs.
- 1.04 The Surety's liability is limited to the amount of this Warranty Bond. Renewal or continuation of the Warranty Bond will not modify such amount, unless expressly agreed to by Surety in writing.
- 1.05 The Surety shall have no liability under this Warranty Bond for obligations of the Contractor that are unrelated to the Construction Contract. No right of action will accrue on this Warranty Bond to any person or entity other than the Owner or its heirs, executors, administrators, successors, and assigns.
- 1.06 Any proceeding, legal or equitable, under this Warranty Bond may be instituted in any court of competent jurisdiction in the location in which the Work or part of the Work is located and must be instituted within two years after the Surety refuses or fails to perform its obligations under this Warranty Bond.
- 1.07 Written notice to the Surety, the Owner, or the Contractor must be mailed or delivered to the address shown in this Warranty Bond.
- 1.08 Definitions
- A. Construction Contract—The agreement between the Owner and Contractor identified on the cover page of this Warranty Bond, including all Contract Documents and changes made to the agreement and the Contract Documents.
  - B. Contract Documents—All the documents that comprise the agreement between the Owner and Contractor.
  - C. Correction Period Obligations—The duties, responsibilities, commitments, and obligations of the Contractor with respect to correction or replacement of defective

Work, as set forth in the Construction Contract's Correction Period clause, EJCDC® C-700, Standard General Conditions of the Construction Contract (2018), Paragraph 15.08, as duly modified.

D. Substantial Completion—As defined in the Construction Contract.

E. Work—As defined in the Construction Contract.

1.09 Modifications to this Bond are as follows: **list modifications below**

EJCDC C-615 PAYMENT BOND

Contractor

Name: \_\_\_\_\_  
Address (principal place of business): \_\_\_\_\_

Surety

Name: \_\_\_\_\_  
Address (principal place of business): \_\_\_\_\_

Owner

Name: **City of Grand Ledge**  
Mailing Address (principal place of business):  
**310 Greenwood St, Grand Ledge, MI 48837**

Contract

Description (name and location):  
**City of Grand Ledge - River and Harrison  
Streets Improvements**  
Contract Price: \$ \_\_\_\_\_  
Effective Date of Contract: \_\_\_\_\_

Bond

Bond Amount: \$ \_\_\_\_\_  
Date of Bond: \_\_\_\_\_  
*(Date of Bond cannot be earlier than Effective Date of Contract)*

Modifications to this Bond form:  
**See Paragraph 1.18**

Surety and Contractor, intending to be legally bound hereby, subject to the terms set forth in this Payment Bond, do each cause this Payment Bond to be duly executed by an authorized officer, agent, or representative.

Contractor as Principal

\_\_\_\_\_  
*(Full formal name of Contractor)*

By: \_\_\_\_\_  
*(Signature)*

Name: \_\_\_\_\_  
*(Printed or typed)*

Title: \_\_\_\_\_

Attest: \_\_\_\_\_  
*(Signature)*

Name: \_\_\_\_\_

Surety

\_\_\_\_\_  
*(Full formal name of Surety)(corporate seal)*

By: \_\_\_\_\_  
*(Signature)(Attach Power of Attorney)*

Name: \_\_\_\_\_  
*(Printed or typed)*

Title: \_\_\_\_\_

Attest: \_\_\_\_\_  
*(Signature)*

Name: \_\_\_\_\_

---

(Printed or typed)

---

(Printed or typed)

Title:

Title:

---

Notes: (1) Provide supplemental execution by any additional parties, such as joint venturers. (2) Any singular reference to Contractor, Surety, Owner or other party is considered plural where applicable.

- 1.01 The Contractor and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors, and assigns to the Owner to pay for labor, materials, and equipment furnished for use in the performance of the Construction Contract, which is incorporated herein by reference, subject to the following terms.
- 1.02 If the Contractor promptly makes payment of all sums due to Claimants, and defends, indemnifies, and holds harmless the Owner from claims, demands, liens, or suits by any person or entity seeking payment for labor, materials, or equipment furnished for use in the performance of the Construction Contract, then the Surety and the Contractor shall have no obligation under this Bond.
- 1.03 If there is no Owner Default under the Construction Contract, the Surety's obligation to the Owner under this Bond will arise after the Owner has promptly notified the Contractor and the Surety (at the address described in Paragraph 1.13) of claims, demands, liens, or suits against the Owner or the Owner's property by any person or entity seeking payment for labor, materials, or equipment furnished for use in the performance of the Construction Contract, and tendered defense of such claims, demands, liens, or suits to the Contractor and the Surety.
- 1.04 When the Owner has satisfied the conditions in Paragraph 1.03, the Surety shall promptly and at the Surety's expense defend, indemnify, and hold harmless the Owner against a duly tendered claim, demand, lien, or suit.
- 1.05 The Surety's obligations to a Claimant under this Bond will arise after the following:
  - A. Claimants who do not have a direct contract with the Contractor
    - 1. have furnished a written notice of non-payment to the Contractor, stating with substantial accuracy the amount claimed and the name of the party to whom the materials were, or equipment was, furnished or supplied or for whom the labor was done or performed, within ninety (90) days after having last performed labor or last furnished materials or equipment included in the Claim; and
    - 2. have sent a Claim to the Surety (at the address described in Paragraph 1.13).
  - B. Claimants who are employed by or have a direct contract with the Contractor have sent a Claim to the Surety (at the address described in Paragraph 1.13).
- 1.06 If a notice of non-payment required by Paragraph 1.05.A.1 is given by the Owner to the Contractor, that is sufficient to satisfy a Claimant's obligation to furnish a written notice of non-payment under Paragraph 1.05.A.1.

- 1.07 When a Claimant has satisfied the conditions of Paragraph 1.05.A or 1.05.B, whichever is applicable, the Surety shall promptly and at the Surety's expense take the following actions:
- A. Send an answer to the Claimant, with a copy to the Owner, within sixty (60) days after receipt of the Claim, stating the amounts that are undisputed and the basis for challenging any amounts that are disputed; and
  - B. Pay or arrange for payment of any undisputed amounts.
  - C. The Surety's failure to discharge its obligations under Paragraph 1.07.A or 1.07.B will not be deemed to constitute a waiver of defenses the Surety or Contractor may have or acquire as to a Claim, except as to undisputed amounts for which the Surety and Claimant have reached agreement. If, however, the Surety fails to discharge its obligations under Paragraph 1.07.A or 1.07.B, the Surety shall indemnify the Claimant for the reasonable attorney's fees the Claimant incurs thereafter to recover any sums found to be due and owing to the Claimant.
- 1.08 The Surety's total obligation will not exceed the amount of this Bond, plus the amount of reasonable attorney's fees provided under Paragraph 1.07.C, and the amount of this Bond will be credited for any payments made in good faith by the Surety.
- 1.09 Amounts owed by the Owner to the Contractor under the Construction Contract will be used for the performance of the Construction Contract and to satisfy claims, if any, under any construction performance bond. By the Contractor furnishing and the Owner accepting this Bond, they agree that all funds earned by the Contractor in the performance of the Construction Contract are dedicated to satisfying obligations of the Contractor and Surety under this Bond, subject to the Owner's priority to use the funds for the completion of the work.
- 1.10 The Surety shall not be liable to the Owner, Claimants, or others for obligations of the Contractor that are unrelated to the Construction Contract. The Owner shall not be liable for the payment of any costs or expenses of any Claimant under this Bond, and shall have under this Bond no obligation to make payments to or give notice on behalf of Claimants, or otherwise have any obligations to Claimants under this Bond.
- 1.11 The Surety hereby waives notice of any change, including changes of time, to the Construction Contract or to related subcontracts, purchase orders, and other obligations.
- 1.12 No suit or action will be commenced by a Claimant under this Bond other than in a court of competent jurisdiction in the state in which the project that is the subject of the Construction Contract is located or after the expiration of one year from the date (1) on which the Claimant sent a Claim to the Surety pursuant to Paragraph 1.05.A.2 or 1.05.B, or (2) on which the last labor or service was performed by anyone or the last materials or equipment were furnished by anyone under the Construction Contract, whichever of (1) or (2) first occurs. If the provisions of this paragraph are void or prohibited by law, the minimum period of limitation available to sureties as a defense in the jurisdiction of the suit will be applicable.

- 1.13 Notice and Claims to the Surety, the Owner, or the Contractor must be mailed or delivered to the address shown on the page on which their signature appears. Actual receipt of notice or Claims, however accomplished, will be sufficient compliance as of the date received.
- 1.14 When this Bond has been furnished to comply with a statutory or other legal requirement in the location where the construction was to be performed, any provision in this Bond conflicting with said statutory or legal requirement will be deemed deleted here from and provisions conforming to such statutory or other legal requirement will be deemed incorporated herein. When so furnished, the intent is that this Bond will be construed as a statutory bond and not as a common law bond.
- 1.15 Upon requests by any person or entity appearing to be a potential beneficiary of this Bond, the Contractor and Owner shall promptly furnish a copy of this Bond or shall permit a copy to be made.
- 1.16 Definitions

A. *Claim* - A written statement by the Claimant including at a minimum:

1. The name of the Claimant;
2. The name of the person for whom the labor was done, or materials or equipment furnished;
3. A copy of the agreement or purchase order pursuant to which labor, materials, or equipment was furnished for use in the performance of the Construction Contract;
4. A brief description of the labor, materials, or equipment furnished;
5. The date on which the Claimant last performed labor or last furnished materials or equipment for use in the performance of the Construction Contract;
6. The total amount earned by the Claimant for labor, materials, or equipment furnished as of the date of the Claim;
7. The total amount of previous payments received by the Claimant; and
8. The total amount due and unpaid to the Claimant for labor, materials, or equipment furnished as of the date of the Claim.

B. *Claimant* - An individual or entity having a direct contract with the Contractor or with a subcontractor of the Contractor to furnish labor, materials, or equipment for use in the performance of the Construction Contract. The term Claimant also includes any individual or entity that has rightfully asserted a claim under an applicable mechanic's lien or similar statute against the real property upon which the Project is located. The intent of this Bond is to include without limitation in the terms of "labor, materials, or equipment" that part of the water, gas, power, light, heat, oil, gasoline, telephone service, or rental equipment used in the Construction Contract,

- architectural and engineering services required for performance of the work of the Contractor and the Contractor's subcontractors, and all other items for which a mechanic's lien may be asserted in the jurisdiction where the labor, materials, or equipment were furnished.
- C. *Construction Contract* - The agreement between the Owner and Contractor identified on the cover page, including all Contract Documents and all changes made to the agreement and the Contract Documents.
  - D. *Owner Default* - Failure of the Owner, which has not been remedied or waived, to pay the Contractor as required under the Construction Contract or to perform and complete or comply with the other material terms of the Construction Contract.
  - E. *Contract Documents* - All the documents that comprise the agreement between the Owner and Contractor.
- 1.17 If this Bond is issued for an agreement between a contractor and subcontractor, the term Contractor in this Bond will be deemed to be Subcontractor and the term Owner will be deemed to be Contractor.
- 1.18 Modifications to this Bond are as follows: **list modifications below**

**EJCDC C-625 CERTIFICATE OF SUBSTANTIAL COMPLETION**

Owner:	Owner's Project No.:
<b>City of Grand Ledge</b>	Engineer's Project No.: <b>24-0013</b>
Engineer: <b>Wolverine Engineers &amp; Surveyors, Inc</b>	Contractor's Project No.:
Contractor: <b>Contractor Name</b>	
Project: <b>City of Grand Ledge - River and Harrison Streets Improvements</b>	
Contract Name: _____	

This  Preliminary  Final Certificate of Substantial Completion applies to:

All Work  The following specified portions of the Work:

\_\_\_\_\_

Date of Substantial Completion: \_\_\_\_\_

The Work to which this Certificate applies has been inspected by authorized representatives of Owner, Contractor, and Engineer, and found to be substantially complete. The Date of Substantial Completion of the Work or portion thereof designated above is hereby established, subject to the provisions of the Contract pertaining to Substantial Completion. The date of Substantial Completion in the final Certificate of Substantial Completion marks the commencement of the contractual correction period and applicable warranties required by the Contract.

A punch list of items to be completed or corrected is attached to this Certificate. This list may not be all-inclusive, and the failure to include any items on such list does not alter the responsibility of the Contractor to complete all Work in accordance with the Contract Documents.

Amendments of contractual responsibilities recorded in this Certificate should be the product of mutual agreement of Owner and Contractor; see Paragraph 15.03.D of the General Conditions.

The responsibilities between Owner and Contractor for security, operation, safety, maintenance, heat, utilities, insurance, and warranties upon Owner's use or occupancy of the Work must be as provided in the Contract, except as amended as follows:

Amendments to Owner's Responsibilities:  None  As follows:

\_\_\_\_\_

Amendments to Contractor's Responsibilities:  None  As follows:

\_\_\_\_\_

The following documents are attached to and made a part of this Certificate:

\_\_\_\_\_

This Certificate does not constitute an acceptance of Work not in accordance with the Contract Documents, nor is it a release of Contractor's obligation to complete the Work in accordance with the Contract Documents.

Engineer **Wolverine Engineers & Surveyors, Inc**

By (signature): \_\_\_\_\_

Name (printed): \_\_\_\_\_

Title: \_\_\_\_\_

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## EJCDC C-700 STANDARD GENERAL CONDITIONS OF THE CONSTRUCTION CONTRACT

### ARTICLE 1 - DEFINITIONS AND TERMINOLOGY

#### 1.01 Defined Terms

- A. Wherever used in the Bidding Requirements or Contract Documents, a term printed with initial capital letters, including the term's singular and plural forms, will have the meaning indicated in the definitions below. In addition to terms specifically defined, terms with initial capital letters in the Contract Documents include references to identified articles and paragraphs, and the titles of other documents or forms.
1. *Addenda* - Written or graphic instruments issued prior to the opening of Bids which clarify, correct, or change the Bidding Requirements or the proposed Contract Documents.
  2. *Agreement* - The written instrument, executed by Owner and Contractor, that sets forth the Contract Price and Contract Times, identifies the parties and the Engineer, and designates the specific items that are Contract Documents.
  3. *Application for Payment* - The document prepared by Contractor, in a form acceptable to Engineer, to request progress or final payments, and which is to be accompanied by such supporting documentation as is required by the Contract Documents.
  4. *Bid* - The offer of a Bidder submitted on the prescribed form setting forth the prices for the Work to be performed.
  5. *Bidder* - An individual or entity that submits a Bid to Owner.
  6. *Bidding Documents* - The Bidding Requirements, the proposed Contract Documents, and all Addenda.
  7. *Bidding Requirements* - The Advertisement or invitation to bid, Instructions to Bidders, Bid Bond or other Bid security, if any, the Bid Form, and the Bid with any attachments.
  8. *Change Order* - A document which is signed by Contractor and Owner and authorizes an addition, deletion, or revision in the Work or an adjustment in the Contract Price or the Contract Times, or other revision to the Contract, issued on or after the Effective Date of the Contract.
  9. *Change Proposal* - A written request by Contractor, duly submitted in compliance with the procedural requirements set forth herein, seeking an adjustment in Contract Price or Contract Times; contesting an initial decision by Engineer concerning the requirements of the Contract Documents or the acceptability of Work under the Contract Documents; challenging a set-off against payments due; or seeking other relief with respect to the terms of the Contract.

10. *Claim*

- a. A demand or assertion by Owner directly to Contractor, duly submitted in compliance with the procedural requirements set forth herein, seeking an adjustment of Contract Price or Contract Times; contesting an initial decision by Engineer concerning the requirements of the Contract Documents or the acceptability of Work under the Contract Documents; contesting Engineer's decision regarding a Change Proposal; seeking resolution of a contractual issue that Engineer has declined to address; or seeking other relief with respect to the terms of the Contract.
  - b. A demand or assertion by Contractor directly to Owner, duly submitted in compliance with the procedural requirements set forth herein, contesting Engineer's decision regarding a Change Proposal, or seeking resolution of a contractual issue that Engineer has declined to address.
  - c. A demand or assertion by Owner or Contractor, duly submitted in compliance with the procedural requirements set forth herein, made pursuant to Paragraph 12.01.A.4, concerning disputes arising after Engineer has issued a recommendation of final payment.
  - d. A demand for money or services by a third party is not a Claim.
11. *Constituent of Concern* - Asbestos, petroleum, radioactive materials, polychlorinated biphenyls (PCBs), lead-based paint (as defined by the HUD/EPA standard), hazardous waste, and any substance, product, waste, or other material of any nature whatsoever that is or becomes listed, regulated, or addressed pursuant to Laws and Regulations regulating, relating to, or imposing liability or standards of conduct concerning, any hazardous, toxic, or dangerous waste, substance, or material.
12. *Contract* - The entire and integrated written contract between Owner and Contractor concerning the Work.
13. *Contract Documents* - Those items so designated in the Agreement, and which together comprise the Contract.
14. *Contract Price* - The money that Owner has agreed to pay Contractor for completion of the Work in accordance with the Contract Documents.
15. *Contract Times* - The number of days or the dates by which Contractor shall: (a) achieve Milestones, if any; (b) achieve Substantial Completion; and (c) complete the Work.
16. *Contractor* - The individual or entity with which Owner has contracted for performance of the Work.
17. *Cost of the Work* - See Paragraph 13.01 for definition.

18. *Drawings* - The part of the Contract that graphically shows the scope, extent, and character of the Work to be performed by Contractor.
19. *Effective Date of the Contract* - The date, indicated in the Agreement, on which the Contract becomes effective.
20. *Electronic Document* - Any Project-related correspondence, attachments to correspondence, data, documents, drawings, information, or graphics, including but not limited to Shop Drawings and other Submittals, that are in an electronic or digital format.
21. *Electronic Means* - Electronic mail (email), upload/download from a secure Project website, or other communications methods that allow: (a) the transmission or communication of Electronic Documents; (b) the documentation of transmissions, including sending and receipt; (c) printing of the transmitted Electronic Document by the recipient; (d) the storage and archiving of the Electronic Document by sender and recipient; and (e) the use by recipient of the Electronic Document for purposes permitted by this Contract. Electronic Means does not include the use of text messaging, or of Facebook, Twitter, Instagram, or similar social media services for transmission of Electronic Documents.
22. *Engineer* - The individual or entity named as such in the Agreement.
23. *Field Order* - A written order issued by Engineer which requires minor changes in the Work but does not change the Contract Price or the Contract Times.
24. *Hazardous Environmental Condition* - The presence at the Site of Constituents of Concern in such quantities or circumstances that may present a danger to persons or property exposed thereto.
  - a. The presence at the Site of materials that are necessary for the execution of the Work, or that are to be incorporated into the Work, and that are controlled and contained pursuant to industry practices, Laws and Regulations, and the requirements of the Contract, is not a Hazardous Environmental Condition.
  - b. The presence of Constituents of Concern that are to be removed or remediated as part of the Work is not a Hazardous Environmental Condition.
  - c. The presence of Constituents of Concern as part of the routine, anticipated, and obvious working conditions at the Site, is not a Hazardous Environmental Condition.
25. *Laws and Regulations; Laws or Regulations* - Any and all applicable laws, statutes, rules, regulations, ordinances, codes, and binding decrees, resolutions, and orders of any and all governmental bodies, agencies, authorities, and courts having jurisdiction.
26. *Liens* - Charges, security interests, or encumbrances upon Contract-related funds, real property, or personal property.

27. *Milestone* - A principal event in the performance of the Work that the Contract requires Contractor to achieve by an intermediate completion date, or by a time prior to Substantial Completion of all the Work.
28. *Notice of Award* - The written notice by Owner to a Bidder of Owner's acceptance of the Bid.
29. *Notice to Proceed* - A written notice by Owner to Contractor fixing the date on which the Contract Times will commence to run and on which Contractor shall start to perform the Work.
30. *Owner* - The individual or entity with which Contractor has contracted regarding the Work, and which has agreed to pay Contractor for the performance of the Work, pursuant to the terms of the Contract.
31. *Progress Schedule* - A schedule, prepared and maintained by Contractor, describing the sequence and duration of the activities comprising Contractor's plan to accomplish the Work within the Contract Times.
32. *Project* - The total undertaking to be accomplished for Owner by engineers, contractors, and others, including planning, study, design, construction, testing, commissioning, and start-up, and of which the Work to be performed under the Contract Documents is a part.
33. *Resident Project Representative* - The authorized representative of Engineer assigned to assist Engineer at the Site. As used herein, the term Resident Project Representative (RPR) includes any assistants or field staff of Resident Project Representative.
34. *Samples* - Physical examples of materials, equipment, or workmanship that are representative of some portion of the Work and that establish the standards by which such portion of the Work will be judged.
35. *Schedule of Submittals* - A schedule, prepared and maintained by Contractor, of required submittals and the time requirements for Engineer's review of the submittals.
36. *Schedule of Values* - A schedule, prepared and maintained by Contractor, allocating portions of the Contract Price to various portions of the Work and used as the basis for reviewing Contractor's Applications for Payment.
37. *Shop Drawings* - All drawings, diagrams, illustrations, schedules, and other data or information that are specifically prepared or assembled by or for Contractor and submitted by Contractor to illustrate some portion of the Work. Shop Drawings, whether approved or not, are not Drawings and are not Contract Documents.
38. *Site* - Lands or areas indicated in the Contract Documents as being furnished by Owner upon which the Work is to be performed, including rights-of-way and easements, and such other lands or areas furnished by Owner which are

designated for the use of Contractor.

39. *Specifications* - The part of the Contract that consists of written requirements for materials, equipment, systems, standards, and workmanship as applied to the Work, and certain administrative requirements and procedural matters applicable to the Work.
40. *Subcontractor* - An individual or entity having a direct contract with Contractor or with any other Subcontractor for the performance of a part of the Work.
41. *Submittal* - A written or graphic document, prepared by or for Contractor, which the Contract Documents require Contractor to submit to Engineer, or that is indicated as a Submittal in the Schedule of Submittals accepted by Engineer. Submittals may include Shop Drawings and Samples; schedules; product data; Owner-delegated designs; sustainable design information; information on special procedures; testing plans; results of tests and evaluations, source quality-control testing and inspections, and field or Site quality-control testing and inspections; warranties and certifications; Suppliers' instructions and reports; records of delivery of spare parts and tools; operations and maintenance data; Project photographic documentation; record documents; and other such documents required by the Contract Documents. Submittals, whether or not approved or accepted by Engineer, are not Contract Documents. Change Proposals, Change Orders, Claims, notices, Applications for Payment, and requests for interpretation or clarification are not Submittals.
42. *Substantial Completion* - The time at which the Work (or a specified part thereof) has progressed to the point where, in the opinion of Engineer, the Work (or a specified part thereof) is sufficiently complete, in accordance with the Contract Documents, so that the Work (or a specified part thereof) can be utilized for the purposes for which it is intended. The terms "substantially complete" and "substantially completed" as applied to all or part of the Work refer to Substantial Completion of such Work.
43. *Successful Bidder* - The Bidder to which the Owner makes an award of contract.
44. *Supplementary Conditions* - The part of the Contract that amends or supplements these General Conditions.
45. *Supplier* - A manufacturer, fabricator, supplier, distributor, or vendor having a direct contract with Contractor or with any Subcontractor to furnish materials or equipment to be incorporated in the Work by Contractor or a Subcontractor.
46. *Technical Data*
  - a. Those items expressly identified as Technical Data in the Supplementary Conditions, with respect to either (1) existing subsurface conditions at or adjacent to the Site, or existing physical conditions at or adjacent to the Site including existing surface or subsurface structures (except Underground Facilities) or (2) Hazardous Environmental Conditions at the Site.

- b. If no such express identifications of Technical Data have been made with respect to conditions at the Site, then Technical Data is defined, with respect to conditions at the Site under Paragraphs 5.03, 5.04, and 5.06, as the data contained in boring logs, recorded measurements of subsurface water levels, assessments of the condition of subsurface facilities, laboratory test results, and other factual, objective information regarding conditions at the Site that are set forth in any geotechnical, environmental, or other Site or facilities conditions report prepared for the Project and made available to Contractor.
  - c. Information and data regarding the presence or location of Underground Facilities are not intended to be categorized, identified, or defined as Technical Data, and instead Underground Facilities are shown or indicated on the Drawings.
47. *Underground Facilities* - All active or not-in-service underground lines, pipelines, conduits, ducts, encasements, cables, wires, manholes, vaults, tanks, tunnels, or other such facilities or systems at the Site, including but not limited to those facilities or systems that produce, transmit, distribute, or convey telephone or other communications, cable television, fiber optic transmissions, power, electricity, light, heat, gases, oil, crude oil products, liquid petroleum products, water, steam, waste, wastewater, storm water, other liquids or chemicals, or traffic or other control systems. An abandoned facility or system is not an Underground Facility.
48. *Unit Price Work* - Work to be paid for on the basis of unit prices.
49. *Work* - The entire construction or the various separately identifiable parts thereof required to be provided under the Contract Documents. Work includes and is the result of performing or providing all labor, services, and documentation necessary to produce such construction; furnishing, installing, and incorporating all materials and equipment into such construction; and may include related services such as testing, start-up, and commissioning, all as required by the Contract Documents.
50. *Work Change Directive* - A written directive to Contractor issued on or after the Effective Date of the Contract, signed by Owner and recommended by Engineer, ordering an addition, deletion, or revision in the Work.

## 1.02 Terminology

- A. The words and terms discussed in Paragraphs 1.02.B, C, D, and E are not defined terms that require initial capital letters, but, when used in the Bidding Requirements or Contract Documents, have the indicated meaning.
- B. *Intent of Certain Terms or Adjectives*: The Contract Documents include the terms “as allowed,” “as approved,” “as ordered,” “as directed” or terms of like effect or import to authorize an exercise of professional judgment by Engineer. In addition, the adjectives “reasonable,” “suitable,” “acceptable,” “proper,” “satisfactory,” or adjectives of like effect or import are used to describe an action or determination of Engineer as

to the Work. It is intended that such exercise of professional judgment, action, or determination will be solely to evaluate, in general, the Work for compliance with the information in the Contract Documents and with the design concept of the Project as a functioning whole as shown or indicated in the Contract Documents (unless there is a specific statement indicating otherwise). The use of any such term or adjective is not intended to and shall not be effective to assign to Engineer any duty or authority to supervise or direct the performance of the Work, or any duty or authority to undertake responsibility contrary to the provisions of Article 10 or any other provision of the Contract Documents.

- C. *Day*: The word “day” means a calendar day of 24 hours measured from midnight to the next midnight.
- D. *Defective*: The word “defective,” when modifying the word “Work,” refers to Work that is unsatisfactory, faulty, or deficient in that it:
1. does not conform to the Contract Documents;
  2. does not meet the requirements of any applicable inspection, reference standard, test, or approval referred to in the Contract Documents; or
  3. has been damaged prior to Engineer’s recommendation of final payment (unless responsibility for the protection thereof has been assumed by Owner at Substantial Completion in accordance with Paragraph 15.03 or Paragraph 15.04).
- E. *Furnish, Install, Perform, Provide*
1. The word “furnish,” when used in connection with services, materials, or equipment, means to supply and deliver said services, materials, or equipment to the Site (or some other specified location) ready for use or installation and in usable or operable condition.
  2. The word “install,” when used in connection with services, materials, or equipment, means to put into use or place in final position said services, materials, or equipment complete and ready for intended use.
  3. The words “perform” or “provide,” when used in connection with services, materials, or equipment, means to furnish and install said services, materials, or equipment complete and ready for intended use.
  4. If the Contract Documents establish an obligation of Contractor with respect to specific services, materials, or equipment, but do not expressly use any of the four words “furnish,” “install,” “perform,” or “provide,” then Contractor shall furnish and install said services, materials, or equipment complete and ready for intended use.
- F. *Contract Price or Contract Times*: References to a change in “Contract Price or Contract Times” or “Contract Times or Contract Price” or similar, indicate that such change applies to (1) Contract Price, (2) Contract Times, or (3) both Contract Price and Contract Times, as warranted, even if the term “or both” is not expressed.

- G. Unless stated otherwise in the Contract Documents, words or phrases that have a well-known technical or construction industry or trade meaning are used in the Contract Documents in accordance with such recognized meaning.

## ARTICLE 2 - PRELIMINARY MATTERS

### 2.01 *Delivery of Performance and Payment Bonds; Evidence of Insurance*

- A. Performance and Payment Bonds: When Contractor delivers the signed counterparts of the Agreement to Owner, Contractor shall also deliver to Owner the performance bond and payment bond (if the Contract requires Contractor to furnish such bonds).
- B. Evidence of Contractor's Insurance: When Contractor delivers the signed counterparts of the Agreement to Owner, Contractor shall also deliver to Owner, with copies to each additional insured (as identified in the Contract), the certificates, endorsements, and other evidence of insurance required to be provided by Contractor in accordance with Article 6, except to the extent the Supplementary Conditions expressly establish other dates for delivery of specific insurance policies.
- C. Evidence of Owner's Insurance: After receipt of the signed counterparts of the Agreement and all required bonds and insurance documentation, Owner shall promptly deliver to Contractor, with copies to each additional insured (as identified in the Contract), the certificates and other evidence of insurance required to be provided by Owner under Article 6.

### 2.02 *Copies of Documents*

- A. Owner shall furnish to Contractor four printed copies of the Contract (including one fully signed counterpart of the Agreement), and one copy in electronic portable document format (PDF). Additional printed copies will be furnished upon request at the cost of reproduction.
- B. Owner shall maintain and safeguard at least one original printed record version of the Contract, including Drawings and Specifications signed and sealed by Engineer and other design professionals. Owner shall make such original printed record version of the Contract available to Contractor for review. Owner may delegate the responsibilities under this provision to Engineer.

### 2.03 *Before Starting Construction*

- A. *Preliminary Schedules*: Within 10 days after the Effective Date of the Contract (or as otherwise required by the Contract Documents), Contractor shall submit to Engineer for timely review:
  - 1. a preliminary Progress Schedule indicating the times (numbers of days or dates) for starting and completing the various stages of the Work, including any Milestones specified in the Contract;
  - 2. a preliminary Schedule of Submittals; and

3. a preliminary Schedule of Values for all of the Work which includes quantities and prices of items which when added together equal the Contract Price and subdivides the Work into component parts in sufficient detail to serve as the basis for progress payments during performance of the Work. Such prices will include an appropriate amount of overhead and profit applicable to each item of Work.

2.04 *Preconstruction Conference; Designation of Authorized Representatives*

- A. Before any Work at the Site is started, a conference attended by Owner, Contractor, Engineer, and others as appropriate will be held to establish a working understanding among the parties as to the Work, and to discuss the schedules referred to in Paragraph 2.03.A, procedures for handling Shop Drawings, Samples, and other Submittals, processing Applications for Payment, electronic or digital transmittals, and maintaining required records.
- B. At this conference Owner and Contractor each shall designate, in writing, a specific individual to act as its authorized representative with respect to the services and responsibilities under the Contract. Such individuals shall have the authority to transmit and receive information, render decisions relative to the Contract, and otherwise act on behalf of each respective party.

2.05 *Acceptance of Schedules*

- A. At least 10 days before submission of the first Application for Payment a conference, attended by Contractor, Engineer, and others as appropriate, will be held to review the schedules submitted in accordance with Paragraph 2.03.A. No progress payment will be made to Contractor until acceptable schedules are submitted to Engineer.
  1. The Progress Schedule will be acceptable to Engineer if it provides an orderly progression of the Work to completion within the Contract Times. Such acceptance will not impose on Engineer responsibility for the Progress Schedule, for sequencing, scheduling, or progress of the Work, nor interfere with or relieve Contractor from Contractor's full responsibility therefor.
  2. Contractor's Schedule of Submittals will be acceptable to Engineer if it provides a workable arrangement for reviewing and processing the required submittals.
  3. Contractor's Schedule of Values will be acceptable to Engineer as to form and substance if it provides a reasonable allocation of the Contract Price to the component parts of the Work.
  4. If a schedule is not acceptable, Contractor will have an additional 10 days to revise and resubmit the schedule.

2.06 *Electronic Transmittals*

- A. Except as otherwise stated elsewhere in the Contract, the Owner, Engineer, and Contractor may send, and shall accept, Electronic Documents transmitted by Electronic Means.

- B. If the Contract does not establish protocols for Electronic Means, then Owner, Engineer, and Contractor shall jointly develop such protocols.
- C. Subject to any governing protocols for Electronic Means, when transmitting Electronic Documents by Electronic Means, the transmitting party makes no representations as to long-term compatibility, usability, or readability of the Electronic Documents resulting from the recipient's use of software application packages, operating systems, or computer hardware differing from those used in the drafting or transmittal of the Electronic Documents.

### **ARTICLE 3 - CONTRACT DOCUMENTS: INTENT, REQUIREMENTS, REUSE**

#### **3.01 *Intent***

- A. The Contract Documents are complementary; what is required by one Contract Document is as binding as if required by all.
- B. It is the intent of the Contract Documents to describe a functionally complete Project (or part thereof) to be constructed in accordance with the Contract Documents.
- C. Unless otherwise stated in the Contract Documents, if there is a discrepancy between the electronic versions of the Contract Documents (including any printed copies derived from such electronic versions) and the printed record version, the printed record version will govern.
- D. The Contract supersedes prior negotiations, representations, and agreements, whether written or oral.
- E. Engineer will issue clarifications and interpretations of the Contract Documents as provided herein.
- F. Any provision or part of the Contract Documents held to be void or unenforceable under any Law or Regulation will be deemed stricken, and all remaining provisions will continue to be valid and binding upon Owner and Contractor, which agree that the Contract Documents will be reformed to replace such stricken provision or part thereof with a valid and enforceable provision that comes as close as possible to expressing the intention of the stricken provision.
- G. Nothing in the Contract Documents creates:
  - 1. any contractual relationship between Owner or Engineer and any Subcontractor, Supplier, or other individual or entity performing or furnishing any of the Work, for the benefit of such Subcontractor, Supplier, or other individual or entity; or
  - 2. any obligation on the part of Owner or Engineer to pay or to see to the payment of any money due any such Subcontractor, Supplier, or other individual or entity, except as may otherwise be required by Laws and Regulations.

#### **3.02 *Reference Standards***

*A. Standards Specifications, Codes, Laws and Regulations*

1. Reference in the Contract Documents to standard specifications, manuals, reference standards, or codes of any technical society, organization, or association, or to Laws or Regulations, whether such reference be specific or by implication, means the standard specification, manual, reference standard, code, or Laws or Regulations in effect at the time of opening of Bids (or on the Effective Date of the Contract if there were no Bids), except as may be otherwise specifically stated in the Contract Documents.
2. No provision of any such standard specification, manual, reference standard, or code, and no instruction of a Supplier, will be effective to change the duties or responsibilities of Owner, Contractor, or Engineer from those set forth in the part of the Contract Documents prepared by or for Engineer. No such provision or instruction shall be effective to assign to Owner or Engineer any duty or authority to supervise or direct the performance of the Work, or any duty or authority to undertake responsibility inconsistent with the provisions of the part of the Contract Documents prepared by or for Engineer.

**3.03** *Reporting and Resolving Discrepancies*

*A. Reporting Discrepancies*

1. Contractor's Verification of Figures and Field Measurements: Before undertaking each part of the Work, Contractor shall carefully study the Contract Documents, and check and verify pertinent figures and dimensions therein, particularly with respect to applicable field measurements. Contractor shall promptly report in writing to Engineer any conflict, error, ambiguity, or discrepancy that Contractor discovers, or has actual knowledge of, and shall not proceed with any Work affected thereby until the conflict, error, ambiguity, or discrepancy is resolved by a clarification or interpretation by Engineer, or by an amendment or supplement to the Contract issued pursuant to Paragraph 11.01.
2. Contractor's Review of Contract Documents: If, before or during the performance of the Work, Contractor discovers any conflict, error, ambiguity, or discrepancy within the Contract Documents, or between the Contract Documents and (a) any applicable Law or Regulation, (b) actual field conditions, (c) any standard specification, manual, reference standard, or code, or (d) any instruction of any Supplier, then Contractor shall promptly report it to Engineer in writing. Contractor shall not proceed with the Work affected thereby (except in an emergency as required by Paragraph 7.15) until the conflict, error, ambiguity, or discrepancy is resolved, by a clarification or interpretation by Engineer, or by an amendment or supplement to the Contract issued pursuant to Paragraph 11.01.
3. Contractor shall not be liable to Owner or Engineer for failure to report any conflict, error, ambiguity, or discrepancy in the Contract Documents unless Contractor had actual knowledge thereof.

*B. Resolving Discrepancies*

1. Except as may be otherwise specifically stated in the Contract Documents, the provisions of the part of the Contract Documents prepared by or for Engineer take precedence in resolving any conflict, error, ambiguity, or discrepancy between such provisions of the Contract Documents and:
  - a. the provisions of any standard specification, manual, reference standard, or code, or the instruction of any Supplier (whether or not specifically incorporated by reference as a Contract Document); or
  - b. the provisions of any Laws or Regulations applicable to the performance of the Work (unless such an interpretation of the provisions of the Contract Documents would result in violation of such Law or Regulation).

### 3.04 *Requirements of the Contract Documents*

- A. During the performance of the Work and until final payment, Contractor and Owner shall submit to the Engineer in writing all matters in question concerning the requirements of the Contract Documents (sometimes referred to as requests for information or interpretation—RFIs), or relating to the acceptability of the Work under the Contract Documents, as soon as possible after such matters arise. Engineer will be the initial interpreter of the requirements of the Contract Documents, and judge of the acceptability of the Work.
- B. Engineer will, with reasonable promptness, render a written clarification, interpretation, or decision on the issue submitted, or initiate an amendment or supplement to the Contract Documents. Engineer's written clarification, interpretation, or decision will be final and binding on Contractor, unless it appeals by submitting a Change Proposal, and on Owner, unless it appeals by filing a Claim.
- C. If a submitted matter in question concerns terms and conditions of the Contract Documents that do not involve (1) the performance or acceptability of the Work under the Contract Documents, (2) the design (as set forth in the Drawings, Specifications, or otherwise), or (3) other engineering or technical matters, then Engineer will promptly notify Owner and Contractor in writing that Engineer is unable to provide a decision or interpretation. If Owner and Contractor are unable to agree on resolution of such a matter in question, either party may pursue resolution as provided in Article 12.

### 3.05 *Reuse of Documents*

- A. Contractor and its Subcontractors and Suppliers shall not:
  1. have or acquire any title to or ownership rights in any of the Drawings, Specifications, or other documents (or copies of any thereof) prepared by or bearing the seal of Engineer or its consultants, including electronic media versions, or reuse any such Drawings, Specifications, other documents, or copies thereof on extensions of the Project or any other project without written consent of Owner and Engineer and specific written verification or adaptation by Engineer; or

2. have or acquire any title or ownership rights in any other Contract Documents, reuse any such Contract Documents for any purpose without Owner's express written consent, or violate any copyrights pertaining to such Contract Documents.
- B. The prohibitions of this Paragraph 3.05 will survive final payment, or termination of the Contract. Nothing herein precludes Contractor from retaining copies of the Contract Documents for record purposes.

#### **ARTICLE 4 - COMMENCEMENT AND PROGRESS OF THE WORK**

##### **4.01 *Commencement of Contract Times; Notice to Proceed***

- A. The Contract Times will commence to run on the 30th day after the Effective Date of the Contract or, if a Notice to Proceed is given, on the day indicated in the Notice to Proceed. A Notice to Proceed may be given at any time within 30 days after the Effective Date of the Contract. In no event will the Contract Times commence to run later than the 60th day after the day of Bid opening or the 30th day after the Effective Date of the Contract, whichever date is earlier.

##### **4.02 *Starting the Work***

- A. Contractor shall start to perform the Work on the date when the Contract Times commence to run. No Work may be done at the Site prior to such date.

##### **4.03 *Reference Points***

- A. Owner shall provide engineering surveys to establish reference points for construction which in Engineer's judgment are necessary to enable Contractor to proceed with the Work. Contractor shall be responsible for laying out the Work, shall protect and preserve the established reference points and property monuments, and shall make no changes or relocations without the prior written approval of Owner. Contractor shall report to Engineer whenever any reference point or property monument is lost or destroyed or requires relocation because of necessary changes in grades or locations, and shall be responsible for the accurate replacement or relocation of such reference points or property monuments by professionally qualified personnel.

##### **4.04 *Progress Schedule***

- A. Contractor shall adhere to the Progress Schedule established in accordance with Paragraph 2.05 as it may be adjusted from time to time as provided below.
1. Contractor shall submit to Engineer for acceptance (to the extent indicated in Paragraph 2.05) proposed adjustments in the Progress Schedule that will not result in changing the Contract Times.
  2. Proposed adjustments in the Progress Schedule that will change the Contract Times must be submitted in accordance with the requirements of Article 11.

- B. Contractor shall carry on the Work and adhere to the Progress Schedule during all disputes or disagreements with Owner. No Work will be delayed or postponed pending resolution of any disputes or disagreements, or during any appeal process, except as permitted by Paragraph 16.04, or as Owner and Contractor may otherwise agree in writing.

4.05 *Delays in Contractor's Progress*

- A. If Owner, Engineer, or anyone for whom Owner is responsible, delays, disrupts, or interferes with the performance or progress of the Work, then Contractor shall be entitled to an equitable adjustment in Contract Price or Contract Times.
- B. Contractor shall not be entitled to an adjustment in Contract Price or Contract Times for delay, disruption, or interference caused by or within the control of Contractor. Delay, disruption, and interference attributable to and within the control of a Subcontractor or Supplier shall be deemed to be within the control of Contractor.
- C. If Contractor's performance or progress is delayed, disrupted, or interfered with by unanticipated causes not the fault of and beyond the control of Owner, Contractor, and those for which they are responsible, then Contractor shall be entitled to an equitable adjustment in Contract Times. Such an adjustment will be Contractor's sole and exclusive remedy for the delays, disruption, and interference described in this paragraph. Causes of delay, disruption, or interference that may give rise to an adjustment in Contract Times under this paragraph include but are not limited to the following:
  - 1. Severe and unavoidable natural catastrophes such as fires, floods, epidemics, and earthquakes;
  - 2. Abnormal weather conditions;
  - 3. Acts or failures to act of third-party utility owners or other third-party entities (other than those third-party utility owners or other third-party entities performing other work at or adjacent to the Site as arranged by or under contract with Owner, as contemplated in Article 8); and
  - 4. Acts of war or terrorism.
- D. Contractor's entitlement to an adjustment of Contract Times or Contract Price is limited as follows:
  - 1. Contractor's entitlement to an adjustment of the Contract Times is conditioned on the delay, disruption, or interference adversely affecting an activity on the critical path to completion of the Work, as of the time of the delay, disruption, or interference.
  - 2. Contractor shall not be entitled to an adjustment in Contract Price for any delay, disruption, or interference if such delay is concurrent with a delay, disruption, or interference caused by or within the control of Contractor. Such a concurrent delay by Contractor shall not preclude an adjustment of Contract Times to which

Contractor is otherwise entitled.

3. Adjustments of Contract Times or Contract Price are subject to the provisions of Article 11.
- E. Each Contractor request or Change Proposal seeking an increase in Contract Times or Contract Price must be supplemented by supporting data that sets forth in detail the following:
  1. The circumstances that form the basis for the requested adjustment;
  2. The date upon which each cause of delay, disruption, or interference began to affect the progress of the Work;
  3. The date upon which each cause of delay, disruption, or interference ceased to affect the progress of the Work;
  4. The number of days' increase in Contract Times claimed as a consequence of each such cause of delay, disruption, or interference; and
  5. The impact on Contract Price, in accordance with the provisions of Paragraph 11.07.
- F. Delays, disruption, and interference to the performance or progress of the Work resulting from the existence of a differing subsurface or physical condition, an Underground Facility that was not shown or indicated by the Contract Documents, or not shown or indicated with reasonable accuracy, and those resulting from Hazardous Environmental Conditions, are governed by Article 5, together with the provisions of Paragraphs 4.05.D and 4.05.E.
- G. Paragraph 8.03 addresses delays, disruption, and interference to the performance or progress of the Work resulting from the performance of certain other work at or adjacent to the Site.

## **ARTICLE 5 - SITE; SUBSURFACE AND PHYSICAL CONDITIONS; HAZARDOUS ENVIRONMENTAL CONDITIONS**

### **5.01 *Availability of Lands***

- A. Owner shall furnish the Site. Owner shall notify Contractor in writing of any encumbrances or restrictions not of general application but specifically related to use of the Site with which Contractor must comply in performing the Work.
- B. Upon reasonable written request, Owner shall furnish Contractor with a current statement of record legal title and legal description of the lands upon which permanent improvements are to be made and Owner's interest therein as necessary for giving notice of or filing a mechanic's or construction lien against such lands in accordance with applicable Laws and Regulations.
- C. Contractor shall provide for all additional lands and access thereto that may be required for temporary construction facilities or storage of materials and equipment.

5.02 *Use of Site and Other Areas*A. *Limitation on Use of Site and Other Areas*

1. Contractor shall confine construction equipment, temporary construction facilities, the storage of materials and equipment, and the operations of workers to the Site, adjacent areas that Contractor has arranged to use through construction easements or otherwise, and other adjacent areas permitted by Laws and Regulations, and shall not unreasonably encumber the Site and such other adjacent areas with construction equipment or other materials or equipment. Contractor shall assume full responsibility for (a) damage to the Site; (b) damage to any such other adjacent areas used for Contractor's operations; (c) damage to any other adjacent land or areas, or to improvements, structures, utilities, or similar facilities located at such adjacent lands or areas; and (d) for injuries and losses sustained by the owners or occupants of any such land or areas; provided that such damage or injuries result from the performance of the Work or from other actions or conduct of the Contractor or those for which Contractor is responsible.
2. If a damage or injury claim is made by the owner or occupant of any such land or area because of the performance of the Work, or because of other actions or conduct of the Contractor or those for which Contractor is responsible, Contractor shall (a) take immediate corrective or remedial action as required by Paragraph 7.13, or otherwise; (b) promptly attempt to settle the claim as to all parties through negotiations with such owner or occupant, or otherwise resolve the claim by arbitration or other dispute resolution proceeding, or in a court of competent jurisdiction; and (c) to the fullest extent permitted by Laws and Regulations, indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them, from and against any such claim, and against all costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to any claim or action, legal or equitable, brought by any such owner or occupant against Owner, Engineer, or any other party indemnified hereunder to the extent caused directly or indirectly, in whole or in part by, or based upon, Contractor's performance of the Work, or because of other actions or conduct of the Contractor or those for which Contractor is responsible.

B. *Removal of Debris During Performance of the Work:* During the progress of the Work the Contractor shall keep the Site and other adjacent areas free from accumulations of waste materials, rubbish, and other debris. Removal and disposal of such waste materials, rubbish, and other debris will conform to applicable Laws and Regulations.

C. *Cleaning:* Prior to Substantial Completion of the Work Contractor shall clean the Site and the Work and make it ready for utilization by Owner. At the completion of the Work Contractor shall remove from the Site and adjacent areas all tools, appliances, construction equipment and machinery, and surplus materials and shall restore to original condition all property not designated for alteration by the Contract

Documents.

- D. *Loading of Structures:* Contractor shall not load nor permit any part of any structure to be loaded in any manner that will endanger the structure, nor shall Contractor subject any part of the Work or adjacent structures or land to stresses or pressures that will endanger them.

### 5.03 *Subsurface and Physical Conditions*

A. *Reports and Drawings: The Supplementary Conditions identify:*

1. Those reports of explorations and tests of subsurface conditions at or adjacent to the Site that contain Technical Data;
2. Those drawings of existing physical conditions at or adjacent to the Site, including those drawings depicting existing surface or subsurface structures at or adjacent to the Site (except Underground Facilities), that contain Technical Data; and
3. Technical Data contained in such reports and drawings.

- B. *Underground Facilities:* Underground Facilities are shown or indicated on the Drawings, pursuant to Paragraph 5.05, and not in the drawings referred to in Paragraph 5.03.A. Information and data regarding the presence or location of Underground Facilities are not intended to be categorized, identified, or defined as Technical Data.

- C. *Reliance by Contractor on Technical Data:* Contractor may rely upon the accuracy of the Technical Data expressly identified in the Supplementary Conditions with respect to such reports and drawings, but such reports and drawings are not Contract Documents. If no such express identification has been made, then Contractor may rely upon the accuracy of the Technical Data as defined in Paragraph 1.01.A.46.b.

- D. *Limitations of Other Data and Documents:* Except for such reliance on Technical Data, Contractor may not rely upon or make any claim against Owner or Engineer, or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors, with respect to:

1. the completeness of such reports and drawings for Contractor's purposes, including, but not limited to, any aspects of the means, methods, techniques, sequences, and procedures of construction to be employed by Contractor, and safety precautions and programs incident thereto;
2. other data, interpretations, opinions, and information contained in such reports or shown or indicated in such drawings;
3. the contents of other Site-related documents made available to Contractor, such as record drawings from other projects at or adjacent to the Site, or Owner's archival documents concerning the Site; or

4. any Contractor interpretation of or conclusion drawn from any Technical Data or any such other data, interpretations, opinions, or information.

#### 5.04 *Differing Subsurface or Physical Conditions*

- A. *Notice by Contractor:* If Contractor believes that any subsurface or physical condition that is uncovered or revealed at the Site:
  1. is of such a nature as to establish that any Technical Data on which Contractor is entitled to rely as provided in Paragraph 5.03 is materially inaccurate;
  2. is of such a nature as to require a change in the Drawings or Specifications;
  3. differs materially from that shown or indicated in the Contract Documents; or
  4. is of an unusual nature, and differs materially from conditions ordinarily encountered and generally recognized as inherent in work of the character provided for in the Contract Documents;
- B. *Engineer's Review:* After receipt of written notice as required by the preceding paragraph, Engineer will promptly review the subsurface or physical condition in question; determine whether it is necessary for Owner to obtain additional exploration or tests with respect to the condition; conclude whether the condition falls within any one or more of the differing site condition categories in Paragraph 5.04.A; obtain any pertinent cost or schedule information from Contractor; prepare recommendations to Owner regarding the Contractor's resumption of Work in connection with the subsurface or physical condition in question and the need for any change in the Drawings or Specifications; and advise Owner in writing of Engineer's findings, conclusions, and recommendations.
- C. *Owner's Statement to Contractor Regarding Site Condition:* After receipt of Engineer's written findings, conclusions, and recommendations, Owner shall issue a written statement to Contractor (with a copy to Engineer) regarding the subsurface or physical condition in question, addressing the resumption of Work in connection with such condition, indicating whether any change in the Drawings or Specifications will be made, and adopting or rejecting Engineer's written findings, conclusions, and recommendations, in whole or in part.
- D. *Early Resumption of Work:* If at any time Engineer determines that Work in connection with the subsurface or physical condition in question may resume prior to completion of Engineer's review or Owner's issuance of its statement to Contractor, because the condition in question has been adequately documented, and analyzed on a preliminary basis, then the Engineer may at its discretion instruct Contractor to resume such Work.
- E. *Possible Price and Times Adjustments*
  1. Contractor shall be entitled to an equitable adjustment in Contract Price or Contract Times, to the extent that the existence of a differing subsurface or physical condition, or any related delay, disruption, or interference, causes an

increase or decrease in Contractor's cost of, or time required for, performance of the Work; subject, however, to the following:

- a. Such condition must fall within any one or more of the categories described in Paragraph 5.04.A;
  - b. With respect to Work that is paid for on a unit price basis, any adjustment in Contract Price will be subject to the provisions of Paragraph 13.03; and,
  - c. Contractor's entitlement to an adjustment of the Contract Times is subject to the provisions of Paragraphs 4.05.D and 4.05.E.
2. Contractor shall not be entitled to any adjustment in the Contract Price or Contract Times with respect to a subsurface or physical condition if:
- a. Contractor knew of the existence of such condition at the time Contractor made a commitment to Owner with respect to Contract Price and Contract Times by the submission of a Bid or becoming bound under a negotiated contract, or otherwise;
  - b. The existence of such condition reasonably could have been discovered or revealed as a result of any examination, investigation, exploration, test, or study of the Site and contiguous areas expressly required by the Bidding Requirements or Contract Documents to be conducted by or for Contractor prior to Contractor's making such commitment; or
  - c. Contractor failed to give the written notice required by Paragraph 5.04.A.
3. If Owner and Contractor agree regarding Contractor's entitlement to and the amount or extent of any adjustment in the Contract Price or Contract Times, then any such adjustment will be set forth in a Change Order.
4. Contractor may submit a Change Proposal regarding its entitlement to or the amount or extent of any adjustment in the Contract Price or Contract Times, no later than 30 days after Owner's issuance of the Owner's written statement to Contractor regarding the subsurface or physical condition in question.
- F. *Underground Facilities; Hazardous Environmental Conditions:* Paragraph 5.05 governs rights and responsibilities regarding the presence or location of Underground Facilities. Paragraph 5.06 governs rights and responsibilities regarding Hazardous Environmental Conditions. The provisions of Paragraphs 5.03 and 5.04 are not applicable to the presence or location of Underground Facilities, or to Hazardous Environmental Conditions.

#### 5.05 *Underground Facilities*

- A. *Contractor's Responsibilities:* Unless it is otherwise expressly provided in the Supplementary Conditions, the cost of all of the following are included in the Contract Price, and Contractor shall have full responsibility for:

1. reviewing and checking all information and data regarding existing Underground Facilities at the Site;
  2. complying with applicable state and local utility damage prevention Laws and Regulations;
  3. verifying the actual location of those Underground Facilities shown or indicated in the Contract Documents as being within the area affected by the Work, by exposing such Underground Facilities during the course of construction;
  4. coordination of the Work with the owners (including Owner) of such Underground Facilities, during construction; and
  5. the safety and protection of all existing Underground Facilities at the Site, and repairing any damage thereto resulting from the Work.
- B. *Notice by Contractor:* If Contractor believes that an Underground Facility that is uncovered or revealed at the Site was not shown or indicated on the Drawings, or was not shown or indicated on the Drawings with reasonable accuracy, then Contractor shall, promptly after becoming aware thereof and before further disturbing conditions affected thereby or performing any Work in connection therewith (except in an emergency as required by Paragraph 7.15), notify Owner and Engineer in writing regarding such Underground Facility.
- C. *Engineer's Review: Engineer will:*
1. promptly review the Underground Facility and conclude whether such Underground Facility was not shown or indicated on the Drawings, or was not shown or indicated with reasonable accuracy;
  2. identify and communicate with the owner of the Underground Facility; prepare recommendations to Owner (and if necessary issue any preliminary instructions to Contractor) regarding the Contractor's resumption of Work in connection with the Underground Facility in question;
  3. obtain any pertinent cost or schedule information from Contractor; determine the extent, if any, to which a change is required in the Drawings or Specifications to reflect and document the consequences of the existence or location of the Underground Facility; and
  4. advise Owner in writing of Engineer's findings, conclusions, and recommendations.
- D. *Owner's Statement to Contractor Regarding Underground Facility:* After receipt of Engineer's written findings, conclusions, and recommendations, Owner shall issue a written statement to Contractor (with a copy to Engineer) regarding the Underground Facility in question addressing the resumption of Work in connection with such Underground Facility, indicating whether any change in the Drawings or Specifications will be made, and adopting or rejecting Engineer's written findings, conclusions, and recommendations in whole or in part.

- E. *Early Resumption of Work*: If at any time Engineer determines that Work in connection with the Underground Facility may resume prior to completion of Engineer's review or Owner's issuance of its statement to Contractor, because the Underground Facility in question and conditions affected by its presence have been adequately documented, and analyzed on a preliminary basis, then the Engineer may at its discretion instruct Contractor to resume such Work.
- F. *Possible Price and Times Adjustments*
1. Contractor shall be entitled to an equitable adjustment in the Contract Price or Contract Times, to the extent that any existing Underground Facility at the Site that was not shown or indicated on the Drawings, or was not shown or indicated with reasonable accuracy, or any related delay, disruption, or interference, causes an increase or decrease in Contractor's cost of, or time required for, performance of the Work; subject, however, to the following:
    - a. With respect to Work that is paid for on a unit price basis, any adjustment in Contract Price will be subject to the provisions of Paragraph 13.03;
    - b. Contractor's entitlement to an adjustment of the Contract Times is subject to the provisions of Paragraphs 4.05.D and 4.05.E; and
    - c. Contractor gave the notice required in Paragraph 5.05.B.
  2. If Owner and Contractor agree regarding Contractor's entitlement to and the amount or extent of any adjustment in the Contract Price or Contract Times, then any such adjustment will be set forth in a Change Order.
  3. Contractor may submit a Change Proposal regarding its entitlement to or the amount or extent of any adjustment in the Contract Price or Contract Times, no later than 30 days after Owner's issuance of the Owner's written statement to Contractor regarding the Underground Facility in question.
  4. The information and data shown or indicated on the Drawings with respect to existing Underground Facilities at the Site is based on information and data (a) furnished by the owners of such Underground Facilities, or by others, (b) obtained from available records, or (c) gathered in an investigation conducted in accordance with the current edition of ASCE 38, Standard Guideline for the Collection and Depiction of Existing Subsurface Utility Data, by the American Society of Civil Engineers. If such information or data is incorrect or incomplete, Contractor's remedies are limited to those set forth in this Paragraph 5.05.F.

#### 5.06 *Hazardous Environmental Conditions at Site*

##### A. *Reports and Drawings: The Supplementary Conditions identify:*

1. those reports known to Owner relating to Hazardous Environmental Conditions that have been identified at or adjacent to the Site;

2. drawings known to Owner relating to Hazardous Environmental Conditions that have been identified at or adjacent to the Site; and
  3. Technical Data contained in such reports and drawings.
- B. *Reliance by Contractor on Technical Data Authorized:* Contractor may rely upon the accuracy of the Technical Data expressly identified in the Supplementary Conditions with respect to such reports and drawings, but such reports and drawings are not Contract Documents. If no such express identification has been made, then Contractor may rely on the accuracy of the Technical Data as defined in Paragraph 1.01.A.46.b. Except for such reliance on Technical Data, Contractor may not rely upon or make any claim against Owner or Engineer, or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors, with respect to:
1. the completeness of such reports and drawings for Contractor's purposes, including, but not limited to, any aspects of the means, methods, techniques, sequences and procedures of construction to be employed by Contractor, and safety precautions and programs incident thereto;
  2. other data, interpretations, opinions, and information contained in such reports or shown or indicated in such drawings; or
  3. any Contractor interpretation of or conclusion drawn from any Technical Data or any such other data, interpretations, opinions or information.
- C. Contractor shall not be responsible for removing or remediating any Hazardous Environmental Condition encountered, uncovered, or revealed at the Site unless such removal or remediation is expressly identified in the Contract Documents to be within the scope of the Work.
- D. Contractor shall be responsible for controlling, containing, and duly removing all Constituents of Concern brought to the Site by Contractor, Subcontractors, Suppliers, or anyone else for whom Contractor is responsible, and for any associated costs; and for the costs of removing and remediating any Hazardous Environmental Condition created by the presence of any such Constituents of Concern.
- E. If Contractor encounters, uncovers, or reveals a Hazardous Environmental Condition whose removal or remediation is not expressly identified in the Contract Documents as being within the scope of the Work, or if Contractor or anyone for whom Contractor is responsible creates a Hazardous Environmental Condition, then Contractor shall immediately: (1) secure or otherwise isolate such condition; (2) stop all Work in connection with such condition and in any area affected thereby (except in an emergency as required by Paragraph 7.15); and (3) notify Owner and Engineer (and promptly thereafter confirm such notice in writing). Owner shall promptly consult with Engineer concerning the necessity for Owner to retain a qualified expert to evaluate such condition or take corrective action, if any. Promptly after consulting with Engineer, Owner shall take such actions as are necessary to permit Owner to timely obtain required permits and provide Contractor the written notice required by

- Paragraph 5.06.F. If Contractor or anyone for whom Contractor is responsible created the Hazardous Environmental Condition in question, then Owner may remove and remediate the Hazardous Environmental Condition, and impose a set-off against payments to account for the associated costs.
- F. Contractor shall not resume Work in connection with such Hazardous Environmental Condition or in any affected area until after Owner has obtained any required permits related thereto, and delivered written notice to Contractor either (1) specifying that such condition and any affected area is or has been rendered safe for the resumption of Work, or (2) specifying any special conditions under which such Work may be resumed safely.
- G. If Owner and Contractor cannot agree as to entitlement to or on the amount or extent, if any, of any adjustment in Contract Price or Contract Times, as a result of such Work stoppage, such special conditions under which Work is agreed to be resumed by Contractor, or any costs or expenses incurred in response to the Hazardous Environmental Condition, then within 30 days of Owner's written notice regarding the resumption of Work, Contractor may submit a Change Proposal, or Owner may impose a set-off. Entitlement to any such adjustment is subject to the provisions of Paragraphs 4.05.D, 4.05.E, 11.07, and 11.08.
- H. If, after receipt of such written notice, Contractor does not agree to resume such Work based on a reasonable belief it is unsafe, or does not agree to resume such Work under such special conditions, then Owner may order the portion of the Work that is in the area affected by such condition to be deleted from the Work, following the contractual change procedures in Article 11. Owner may have such deleted portion of the Work performed by Owner's own forces or others in accordance with Article 8.
- I. To the fullest extent permitted by Laws and Regulations, Owner shall indemnify and hold harmless Contractor, Subcontractors, and Engineer, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them, from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals, and all court, arbitration, or other dispute resolution costs) arising out of or relating to a Hazardous Environmental Condition (1) was not shown or indicated in the Drawings, Specifications, or other Contract Documents, identified as Technical Data entitled to limited reliance pursuant to Paragraph 5.06.B, or identified in the Contract Documents to be included within the scope of the Work, and (2) was not created by Contractor or by anyone for whom Contractor is responsible. Nothing in this Paragraph 5.06.I obligates Owner to indemnify any individual or entity from and against the consequences of that individual's or entity's own negligence.
- J. To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them, from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out

of or relating to the failure to control, contain, or remove a Constituent of Concern brought to the Site by Contractor or by anyone for whom Contractor is responsible, or to a Hazardous Environmental Condition created by Contractor or by anyone for whom Contractor is responsible. Nothing in this Paragraph 5.06.J obligates Contractor to indemnify any individual or entity from and against the consequences of that individual's or entity's own negligence.

- K. The provisions of Paragraphs 5.03, 5.04, and 5.05 do not apply to the presence of Constituents of Concern or to a Hazardous Environmental Condition uncovered or revealed at the Site.

## ARTICLE 6 - BONDS AND INSURANCE

### 6.01 *Performance, Payment, and Other Bonds*

- A. Contractor shall furnish a performance bond and a payment bond, each in an amount at least equal to the Contract Price, as security for the faithful performance and payment of Contractor's obligations under the Contract. These bonds must remain in effect until one year after the date when final payment becomes due or until completion of the correction period specified in Paragraph 15.08, whichever is later, except as provided otherwise by Laws or Regulations, the terms of a prescribed bond form, the Supplementary Conditions, or other provisions of the Contract.
- B. Contractor shall also furnish such other bonds (if any) as are required by the Supplementary Conditions or other provisions of the Contract.
- C. All bonds must be in the form included in the Bidding Documents or otherwise specified by Owner prior to execution of the Contract, except as provided otherwise by Laws or Regulations, and must be issued and signed by a surety named in "Companies Holding Certificates of Authority as Acceptable Sureties on Federal Bonds and as Acceptable Reinsuring Companies" as published in Department Circular 570 (as amended and supplemented) by the Bureau of the Fiscal Service, U.S. Department of the Treasury. A bond signed by an agent or attorney-in-fact must be accompanied by a certified copy of that individual's authority to bind the surety. The evidence of authority must show that it is effective on the date the agent or attorney-in-fact signed the accompanying bond.
- D. Contractor shall obtain the required bonds from surety companies that are duly licensed or authorized, in the state or jurisdiction in which the Project is located, to issue bonds in the required amounts.
- E. If the surety on a bond furnished by Contractor is declared bankrupt or becomes insolvent, or the surety ceases to meet the requirements above, then Contractor shall promptly notify Owner and Engineer in writing and shall, within 20 days after the event giving rise to such notification, provide another bond and surety, both of which must comply with the bond and surety requirements above.
- F. If Contractor has failed to obtain a required bond, Owner may exclude the Contractor from the Site and exercise Owner's termination rights under Article 16.

- G. Upon request to Owner from any Subcontractor, Supplier, or other person or entity claiming to have furnished labor, services, materials, or equipment used in the performance of the Work, Owner shall provide a copy of the payment bond to such person or entity.
- H. Upon request to Contractor from any Subcontractor, Supplier, or other person or entity claiming to have furnished labor, services, materials, or equipment used in the performance of the Work, Contractor shall provide a copy of the payment bond to such person or entity.

6.02 *Insurance - General Provisions*

- A. Owner and Contractor shall obtain and maintain insurance as required in this article and in the Supplementary Conditions.
- B. All insurance required by the Contract to be purchased and maintained by Owner or Contractor shall be obtained from insurance companies that are duly licensed or authorized in the state or jurisdiction in which the Project is located to issue insurance policies for the required limits and coverages. Unless a different standard is indicated in the Supplementary Conditions, all companies that provide insurance policies required under this Contract shall have an A.M. Best rating of A-VII or better.
- C. Alternative forms of insurance coverage, including but not limited to self-insurance and "Occupational Accident and Excess Employer's Indemnity Policies," are not sufficient to meet the insurance requirements of this Contract, unless expressly allowed in the Supplementary Conditions.
- D. Contractor shall deliver to Owner, with copies to each additional insured identified in the Contract, certificates of insurance and endorsements establishing that Contractor has obtained and is maintaining the policies and coverages required by the Contract. Upon request by Owner or any other insured, Contractor shall also furnish other evidence of such required insurance, including but not limited to copies of policies, documentation of applicable self-insured retentions (if allowed) and deductibles, full disclosure of all relevant exclusions, and evidence of insurance required to be purchased and maintained by Subcontractors or Suppliers. In any documentation furnished under this provision, Contractor, Subcontractors, and Suppliers may block out (redact) (1) any confidential premium or pricing information and (2) any wording specific to a project or jurisdiction other than those applicable to this Contract.
- E. Owner shall deliver to Contractor, with copies to each additional insured identified in the Contract, certificates of insurance and endorsements establishing that Owner has obtained and is maintaining the policies and coverages required of Owner by the Contract (if any). Upon request by Contractor or any other insured, Owner shall also provide other evidence of such required insurance (if any), including but not limited to copies of policies, documentation of applicable self-insured retentions (if allowed) and deductibles, and full disclosure of all relevant exclusions. In any documentation furnished under this provision, Owner may block out (redact) (1) any confidential premium or pricing information and (2) any wording specific to a project or jurisdiction other than those relevant to this Contract.

- F. Failure of Owner or Contractor to demand such certificates or other evidence of the other party's full compliance with these insurance requirements, or failure of Owner or Contractor to identify a deficiency in compliance from the evidence provided, will not be construed as a waiver of the other party's obligation to obtain and maintain such insurance.
- G. In addition to the liability insurance required to be provided by Contractor, the Owner, at Owner's option, may purchase and maintain Owner's own liability insurance. Owner's liability policies, if any, operate separately and independently from policies required to be provided by Contractor, and Contractor cannot rely upon Owner's liability policies for any of Contractor's obligations to the Owner, Engineer, or third parties.
- H. Contractor shall require:
  - 1. Subcontractors to purchase and maintain worker's compensation, commercial general liability, and other insurance that is appropriate for their participation in the Project, and to name as additional insureds Owner and Engineer (and any other individuals or entities identified in the Supplementary Conditions as additional insureds on Contractor's liability policies) on each Subcontractor's commercial general liability insurance policy; and
  - 2. Suppliers to purchase and maintain insurance that is appropriate for their participation in the Project.
- I. If either party does not purchase or maintain the insurance required of such party by the Contract, such party shall notify the other party in writing of such failure to purchase prior to the start of the Work, or of such failure to maintain prior to any change in the required coverage.
- J. If Contractor has failed to obtain and maintain required insurance, Contractor's entitlement to enter or remain at the Site will end immediately, and Owner may impose an appropriate set-off against payment for any associated costs (including but not limited to the cost of purchasing necessary insurance coverage), and exercise Owner's termination rights under Article 16.
- K. Without prejudice to any other right or remedy, if a party has failed to obtain required insurance, the other party may elect (but is in no way obligated) to obtain equivalent insurance to protect such other party's interests at the expense of the party who was required to provide such coverage, and the Contract Price will be adjusted accordingly.
- L. Owner does not represent that insurance coverage and limits established in this Contract necessarily will be adequate to protect Contractor or Contractor's interests. Contractor is responsible for determining whether such coverage and limits are adequate to protect its interests, and for obtaining and maintaining any additional insurance that Contractor deems necessary.
- M. The insurance and insurance limits required herein will not be deemed as a limitation on Contractor's liability, or that of its Subcontractors or Suppliers, under the

indemnities granted to Owner and other individuals and entities in the Contract or otherwise.

- N. All the policies of insurance required to be purchased and maintained under this Contract will contain a provision or endorsement that the coverage afforded will not be canceled, or renewal refused, until at least 10 days prior written notice has been given to the purchasing policyholder. Within three days of receipt of any such written notice, the purchasing policyholder shall provide a copy of the notice to each other insured and Engineer.

### 6.03 Contractor's Insurance

- A. *Required Insurance:* Contractor shall purchase and maintain Worker's Compensation, Commercial General Liability, and other insurance pursuant to the specific requirements of the Supplementary Conditions.
- B. *General Provisions:* The policies of insurance required by this Paragraph 6.03 as supplemented must:
1. include at least the specific coverages required;
  2. be written for not less than the limits provided, or those required by Laws or Regulations, whichever is greater;
  3. remain in effect at least until the Work is complete (as set forth in Paragraph 15.06.D), and longer if expressly required elsewhere in this Contract, and at all times thereafter when Contractor may be correcting, removing, or replacing defective Work as a warranty or correction obligation, or otherwise, or returning to the Site to conduct other tasks arising from the Contract;
  4. apply with respect to the performance of the Work, whether such performance is by Contractor, any Subcontractor or Supplier, or by anyone directly or indirectly employed by any of them to perform any of the Work, or by anyone for whose acts any of them may be liable; and
  5. include all necessary endorsements to support the stated requirements.
- C. *Additional Insureds:* The Contractor's commercial general liability, automobile liability, employer's liability, umbrella or excess, pollution liability, and unmanned aerial vehicle liability policies, if required by this Contract, must:
1. include and list as additional insureds Owner and Engineer, and any individuals or entities identified as additional insureds in the Supplementary Conditions;
  2. include coverage for the respective officers, directors, members, partners, employees, and consultants of all such additional insureds;
  3. afford primary coverage to these additional insureds for all claims covered thereby (including as applicable those arising from both ongoing and completed operations);

4. not seek contribution from insurance maintained by the additional insured; and
5. as to commercial general liability insurance, apply to additional insureds with respect to liability caused in whole or in part by Contractor's acts or omissions, or the acts and omissions of those working on Contractor's behalf, in the performance of Contractor's operations.

#### 6.04 *Builder's Risk and Other Property Insurance*

- A. **Builder's Risk:** Unless otherwise provided in the Supplementary Conditions, Contractor shall purchase and maintain builder's risk insurance upon the Work on a completed value basis, in the amount of the Work's full insurable replacement cost (subject to such deductible amounts as may be provided in the Supplementary Conditions or required by Laws and Regulations). The specific requirements applicable to the builder's risk insurance are set forth in the Supplementary Conditions.
- B. **Property Insurance for Facilities of Owner Where Work Will Occur:** Owner is responsible for obtaining and maintaining property insurance covering each existing structure, building, or facility in which any part of the Work will occur, or to which any part of the Work will attach or be adjoined. Such property insurance will be written on a special perils (all-risk) form, on a replacement cost basis, providing coverage consistent with that required for the builder's risk insurance, and will be maintained until the Work is complete, as set forth in Paragraph 15.06.D.
- C. **Property Insurance for Substantially Complete Facilities:** Promptly after Substantial Completion, and before actual occupancy or use of the substantially completed Work, Owner will obtain property insurance for such substantially completed Work, and maintain such property insurance at least until the Work is complete, as set forth in Paragraph 15.06.D. Such property insurance will be written on a special perils (all-risk) form, on a replacement cost basis, and provide coverage consistent with that required for the builder's risk insurance. The builder's risk insurance may terminate upon written confirmation of Owner's procurement of such property insurance.
- D. **Partial Occupancy or Use by Owner:** If Owner will occupy or use a portion or portions of the Work prior to Substantial Completion of all the Work, as provided in Paragraph 15.04, then Owner (directly, if it is the purchaser of the builder's risk policy, or through Contractor) will provide advance notice of such occupancy or use to the builder's risk insurer, and obtain an endorsement consenting to the continuation of coverage prior to commencing such partial occupancy or use.
- E. **Insurance of Other Property; Additional Insurance:** If the express insurance provisions of the Contract do not require or address the insurance of a property item or interest, then the entity or individual owning such property item will be responsible for insuring it. If Contractor elects to obtain other special insurance to be included in or supplement the builder's risk or property insurance policies provided under this Paragraph 6.04, it may do so at Contractor's expense.

#### 6.05 *Property Losses; Subrogation*

- A. The builder's risk insurance policy purchased and maintained in accordance with Paragraph 6.04 (or an installation floater policy if authorized by the Supplementary Conditions), will contain provisions to the effect that in the event of payment of any loss or damage the insurer will have no rights of recovery against any insureds thereunder, or against Engineer or its consultants, or their officers, directors, members, partners, employees, agents, consultants, or subcontractors.
1. Owner and Contractor waive all rights against each other and the respective officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them, for all losses and damages caused by, arising out of, or resulting from any of the perils, risks, or causes of loss covered by such policies and any other property insurance applicable to the Work; and, in addition, waive all such rights against Engineer, its consultants, all individuals or entities identified in the Supplementary Conditions as builder's risk or installation floater insureds, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them, under such policies for losses and damages so caused.
  2. None of the above waivers extends to the rights that any party making such waiver may have to the proceeds of insurance held by Owner or Contractor as trustee or fiduciary, or otherwise payable under any policy so issued.
- B. Any property insurance policy maintained by Owner covering any loss, damage, or consequential loss to Owner's existing structures, buildings, or facilities in which any part of the Work will occur, or to which any part of the Work will attach or adjoin; to adjacent structures, buildings, or facilities of Owner; or to part or all of the completed or substantially completed Work, during partial occupancy or use pursuant to Paragraph 15.04, after Substantial Completion pursuant to Paragraph 15.03, or after final payment pursuant to Paragraph 15.06, will contain provisions to the effect that in the event of payment of any loss or damage the insurer will have no rights of recovery against any insureds thereunder, or against Contractor, Subcontractors, or Engineer, or the officers, directors, members, partners, employees, agents, consultants, or subcontractors of each and any of them, and that the insured is allowed to waive the insurer's rights of subrogation in a written contract executed prior to the loss, damage, or consequential loss.
1. Owner waives all rights against Contractor, Subcontractors, and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them, for all losses and damages caused by, arising out of, or resulting from fire or any of the perils, risks, or causes of loss covered by such policies.
- C. The waivers in this Paragraph 6.05 include the waiver of rights due to business interruption, loss of use, or other consequential loss extending beyond direct physical loss or damage to Owner's property or the Work caused by, arising out of, or resulting from fire or other insured peril, risk, or cause of loss.
- D. Contractor shall be responsible for assuring that each Subcontract contains provisions whereby the Subcontractor waives all rights against Owner, Contractor, all

individuals or entities identified in the Supplementary Conditions as insureds, the Engineer and its consultants, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them, for all losses and damages caused by, arising out of, relating to, or resulting from fire or other peril, risk, or cause of loss covered by builder's risk insurance, installation floater, and any other property insurance applicable to the Work.

6.06 *Receipt and Application of Property Insurance Proceeds*

- A. Any insured loss under the builder's risk and other policies of property insurance required by Paragraph 6.04 will be adjusted and settled with the named insured that purchased the policy. Such named insured shall act as fiduciary for the other insureds, and give notice to such other insureds that adjustment and settlement of a claim is in progress. Any other insured may state its position regarding a claim for insured loss in writing within 15 days after notice of such claim.
- B. Proceeds for such insured losses may be made payable by the insurer either jointly to multiple insureds, or to the named insured that purchased the policy in its own right and as fiduciary for other insureds, subject to the requirements of any applicable mortgage clause. A named insured receiving insurance proceeds under the builder's risk and other policies of insurance required by Paragraph 6.04 shall maintain such proceeds in a segregated account, and distribute such proceeds in accordance with such agreement as the parties in interest may reach, or as otherwise required under the dispute resolution provisions of this Contract or applicable Laws and Regulations.
- C. If no other special agreement is reached, Contractor shall repair or replace the damaged Work, using allocated insurance proceeds.

**ARTICLE 7 - CONTRACTOR'S RESPONSIBILITIES**

7.01 *Contractor's Means and Methods of Construction*

- A. Contractor shall be solely responsible for the means, methods, techniques, sequences, and procedures of construction.
- B. If the Contract Documents note, or Contractor determines, that professional engineering or other design services are needed to carry out Contractor's responsibilities for construction means, methods, techniques, sequences, and procedures, or for Site safety, then Contractor shall cause such services to be provided by a properly licensed design professional, at Contractor's expense. Such services are not Owner-delegated professional design services under this Contract, and neither Owner nor Engineer has any responsibility with respect to (1) Contractor's determination of the need for such services, (2) the qualifications or licensing of the design professionals retained or employed by Contractor, (3) the performance of such services, or (4) any errors, omissions, or defects in such services.

7.02 *Supervision and Superintendence*

- A. Contractor shall supervise, inspect, and direct the Work competently and efficiently, devoting such attention thereto and applying such skills and expertise as may be necessary to perform the Work in accordance with the Contract Documents.
- B. At all times during the progress of the Work, Contractor shall assign a competent resident superintendent who will not be replaced without written notice to Owner and Engineer except under extraordinary circumstances.

7.03 *Labor; Working Hours*

- A. Contractor shall provide competent, suitably qualified personnel to survey and lay out the Work and perform construction as required by the Contract Documents. Contractor shall maintain good discipline and order at the Site.
- B. Contractor shall be fully responsible to Owner and Engineer for all acts and omissions of Contractor's employees; of Suppliers and Subcontractors, and their employees; and of any other individuals or entities performing or furnishing any of the Work, just as Contractor is responsible for Contractor's own acts and omissions.
- C. Except as otherwise required for the safety or protection of persons or the Work or property at the Site or adjacent thereto, and except as otherwise stated in the Contract Documents, all Work at the Site will be performed during regular working hours, Monday through Friday. Contractor will not perform Work on a Saturday, Sunday, or any legal holiday. Contractor may perform Work outside regular working hours or on Saturdays, Sundays, or legal holidays only with Owner's written consent, which will not be unreasonably withheld.

7.04 *Services, Materials, and Equipment*

- A. Unless otherwise specified in the Contract Documents, Contractor shall provide and assume full responsibility for all services, materials, equipment, labor, transportation, construction equipment and machinery, tools, appliances, fuel, power, light, heat, telephone, water, sanitary facilities, temporary facilities, and all other facilities and incidentals necessary for the performance, testing, start up, and completion of the Work, whether or not such items are specifically called for in the Contract Documents.
- B. All materials and equipment incorporated into the Work must be new and of good quality, except as otherwise provided in the Contract Documents. All special warranties and guarantees required by the Specifications will expressly run to the benefit of Owner. If required by Engineer, Contractor shall furnish satisfactory evidence (including reports of required tests) as to the source, kind, and quality of materials and equipment.
- C. All materials and equipment must be stored, applied, installed, connected, erected, protected, used, cleaned, and conditioned in accordance with instructions of the applicable Supplier, except as otherwise may be provided in the Contract Documents.

7.05 *"Or Equals"*

- A. *Contractor's Request; Governing Criteria:* Whenever an item of equipment or material is specified or described in the Contract Documents by using the names of one or more proprietary items or specific Suppliers, the Contract Price has been based upon Contractor furnishing such item as specified. The specification or description of such an item is intended to establish the type, function, appearance, and quality required. Unless the specification or description contains or is followed by words reading that no like, equivalent, or "or equal" item is permitted, Contractor may request that Engineer authorize the use of other items of equipment or material, or items from other proposed Suppliers, under the circumstances described below.
1. If Engineer in its sole discretion determines that an item of equipment or material proposed by Contractor is functionally equal to that named and sufficiently similar so that no change in related Work will be required, Engineer will deem it an "or equal" item. For the purposes of this paragraph, a proposed item of equipment or material will be considered functionally equal to an item so named if:
    - a. in the exercise of reasonable judgment Engineer determines that the proposed item:
      - 1) is at least equal in materials of construction, quality, durability, appearance, strength, and design characteristics;
      - 2) will reliably perform at least equally well the function and achieve the results imposed by the design concept of the completed Project as a functioning whole;
      - 3) has a proven record of performance and availability of responsive service; and
      - 4) is not objectionable to Owner.
    - b. Contractor certifies that, if the proposed item is approved and incorporated into the Work:
      - 1) there will be no increase in cost to the Owner or increase in Contract Times; and
      - 2) the item will conform substantially to the detailed requirements of the item named in the Contract Documents.
- B. *Contractor's Expense:* Contractor shall provide all data in support of any proposed "or equal" item at Contractor's expense.
- C. *Engineer's Evaluation and Determination:* Engineer will be allowed a reasonable time to evaluate each "or-equal" request. Engineer may require Contractor to furnish additional data about the proposed "or-equal" item. Engineer will be the sole judge of acceptability. No "or-equal" item will be ordered, furnished, installed, or utilized until Engineer's review is complete and Engineer determines that the proposed item is an "or-equal," which will be evidenced by an approved Shop Drawing or other written communication. Engineer will advise Contractor in writing of any negative

determination.

- D. *Effect of Engineer's Determination:* Neither approval nor denial of an "or-equal" request will result in any change in Contract Price. The Engineer's denial of an "or-equal" request will be final and binding, and may not be reversed through an appeal under any provision of the Contract.
- E. *Treatment as a Substitution Request:* If Engineer determines that an item of equipment or material proposed by Contractor does not qualify as an "or-equal" item, Contractor may request that Engineer consider the item a proposed substitute pursuant to Paragraph 7.06.

#### 7.06 Substitutes

- A. *Contractor's Request; Governing Criteria:* Unless the specification or description of an item of equipment or material required to be furnished under the Contract Documents contains or is followed by words reading that no substitution is permitted, Contractor may request that Engineer authorize the use of other items of equipment or material under the circumstances described below. To the extent possible such requests must be made before commencement of related construction at the Site.
  1. Contractor shall submit sufficient information as provided below to allow Engineer to determine if the item of material or equipment proposed is functionally equivalent to that named and an acceptable substitute therefor. Engineer will not accept requests for review of proposed substitute items of equipment or material from anyone other than Contractor.
  2. The requirements for review by Engineer will be as set forth in Paragraph 7.06.B, as supplemented by the Specifications, and as Engineer may decide is appropriate under the circumstances.
  3. Contractor shall make written application to Engineer for review of a proposed substitute item of equipment or material that Contractor seeks to furnish or use. The application:
    - a. will certify that the proposed substitute item will:
      - 1) perform adequately the functions and achieve the results called for by the general design;
      - 2) be similar in substance to the item specified; and
      - 3) be suited to the same use as the item specified.
    - b. will state:
      - 1) the extent, if any, to which the use of the proposed substitute item will necessitate a change in Contract Times;
      - 2) whether use of the proposed substitute item in the Work will require a change in any of the Contract Documents (or in the provisions of any

other direct contract with Owner for other work on the Project) to adapt the design to the proposed substitute item; and

- 3) whether incorporation or use of the proposed substitute item in connection with the Work is subject to payment of any license fee or royalty.
- c. will identify:
    - 1) all variations of the proposed substitute item from the item specified; and
    - 2) available engineering, sales, maintenance, repair, and replacement services.
  - d. will contain an itemized estimate of all costs or credits that will result directly or indirectly from use of such substitute item, including but not limited to changes in Contract Price, shared savings, costs of redesign, and claims of other contractors affected by any resulting change.
- B. *Engineer's Evaluation and Determination:* Engineer will be allowed a reasonable time to evaluate each substitute request, and to obtain comments and direction from Owner. Engineer may require Contractor to furnish additional data about the proposed substitute item. Engineer will be the sole judge of acceptability. No substitute will be ordered, furnished, installed, or utilized until Engineer's review is complete and Engineer determines that the proposed item is an acceptable substitute. Engineer's determination will be evidenced by a Field Order or a proposed Change Order accounting for the substitution itself and all related impacts, including changes in Contract Price or Contract Times. Engineer will advise Contractor in writing of any negative determination.
- C. *Special Guarantee:* Owner may require Contractor to furnish at Contractor's expense a special performance guarantee or other surety with respect to any substitute.
- D. *Reimbursement of Engineer's Cost:* Engineer will record Engineer's costs in evaluating a substitute proposed or submitted by Contractor. Whether or not Engineer approves a substitute so proposed or submitted by Contractor, Contractor shall reimburse Owner for the reasonable charges of Engineer for evaluating each such proposed substitute. Contractor shall also reimburse Owner for the reasonable charges of Engineer for making changes in the Contract Documents (or in the provisions of any other direct contract with Owner) resulting from the acceptance of each proposed substitute.
- E. *Contractor's Expense:* Contractor shall provide all data in support of any proposed substitute at Contractor's expense.
- F. *Effect of Engineer's Determination:* If Engineer approves the substitution request, Contractor shall execute the proposed Change Order and proceed with the substitution. The Engineer's denial of a substitution request will be final and binding, and may not be reversed through an appeal under any provision of the Contract. Contractor may challenge the scope of reimbursement costs imposed under Paragraph 7.06.D, by timely submittal of a Change Proposal.

7.07 *Concerning Subcontractors and Suppliers*

- A. Contractor may retain Subcontractors and Suppliers for the performance of parts of the Work. Such Subcontractors and Suppliers must be acceptable to Owner. The Contractor's retention of a Subcontractor or Supplier for the performance of parts of the Work will not relieve Contractor's obligation to Owner to perform and complete the Work in accordance with the Contract Documents.
- B. Contractor shall retain specific Subcontractors and Suppliers for the performance of designated parts of the Work if required by the Contract to do so.
- C. Subsequent to the submittal of Contractor's Bid or final negotiation of the terms of the Contract, Owner may not require Contractor to retain any Subcontractor or Supplier to furnish or perform any of the Work against which Contractor has reasonable objection.
- D. Prior to entry into any binding subcontract or purchase order, Contractor shall submit to Owner the identity of the proposed Subcontractor or Supplier (unless Owner has already deemed such proposed Subcontractor or Supplier acceptable during the bidding process or otherwise). Such proposed Subcontractor or Supplier shall be deemed acceptable to Owner unless Owner raises a substantive, reasonable objection within 5 days.
- E. Owner may require the replacement of any Subcontractor or Supplier. Owner also may require Contractor to retain specific replacements; provided, however, that Owner may not require a replacement to which Contractor has a reasonable objection. If Contractor has submitted the identity of certain Subcontractors or Suppliers for acceptance by Owner, and Owner has accepted it (either in writing or by failing to make written objection thereto), then Owner may subsequently revoke the acceptance of any such Subcontractor or Supplier so identified solely on the basis of substantive, reasonable objection after due investigation. Contractor shall submit an acceptable replacement for the rejected Subcontractor or Supplier.
- F. If Owner requires the replacement of any Subcontractor or Supplier retained by Contractor to perform any part of the Work, then Contractor shall be entitled to an adjustment in Contract Price or Contract Times, with respect to the replacement; and Contractor shall initiate a Change Proposal for such adjustment within 30 days of Owner's requirement of replacement.
- G. No acceptance by Owner of any such Subcontractor or Supplier, whether initially or as a replacement, will constitute a waiver of the right of Owner to the completion of the Work in accordance with the Contract Documents.
- H. On a monthly basis, Contractor shall submit to Engineer a complete list of all Subcontractors and Suppliers having a direct contract with Contractor, and of all other Subcontractors and Suppliers known to Contractor at the time of submittal.
- I. Contractor shall be solely responsible for scheduling and coordinating the work of Subcontractors and Suppliers.

- J. The divisions and sections of the Specifications and the identifications of any Drawings do not control Contractor in dividing the Work among Subcontractors or Suppliers, or in delineating the Work to be performed by any specific trade.
- K. All Work performed for Contractor by a Subcontractor or Supplier must be pursuant to an appropriate contractual agreement that specifically binds the Subcontractor or Supplier to the applicable terms and conditions of the Contract for the benefit of Owner and Engineer.
- L. Owner may furnish to any Subcontractor or Supplier, to the extent practicable, information about amounts paid to Contractor for Work performed for Contractor by the Subcontractor or Supplier.
- M. Contractor shall restrict all Subcontractors and Suppliers from communicating with Engineer or Owner, except through Contractor or in case of an emergency, or as otherwise expressly allowed in this Contract.

7.08 *Patent Fees and Royalties*

- A. Contractor shall pay all license fees and royalties and assume all costs incident to the use in the performance of the Work or the incorporation in the Work of any invention, design, process, product, or device which is the subject of patent rights or copyrights held by others. If an invention, design, process, product, or device is specified in the Contract Documents for use in the performance of the Work and if, to the actual knowledge of Owner or Engineer, its use is subject to patent rights or copyrights calling for the payment of any license fee or royalty to others, the existence of such rights will be disclosed in the Contract Documents.
- B. To the fullest extent permitted by Laws and Regulations, Owner shall indemnify and hold harmless Contractor, and its officers, directors, members, partners, employees, agents, consultants, and subcontractors, from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals, and all court or arbitration or other dispute resolution costs) arising out of or relating to any infringement of patent rights or copyrights incident to the use in the performance of the Work or resulting from the incorporation in the Work of any invention, design, process, product, or device specified in the Contract Documents, but not identified as being subject to payment of any license fee or royalty to others required by patent rights or copyrights.
- C. To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them, from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to any infringement of patent rights or copyrights incident to the use in the performance of the Work or resulting from the incorporation in the Work of any invention, design, process, product, or device not specified in the Contract Documents.

### 7.09 *Permits*

- A. Unless otherwise provided in the Contract Documents, Contractor shall obtain and pay for all construction permits, licenses, and certificates of occupancy. Owner shall assist Contractor, when necessary, in obtaining such permits and licenses. Contractor shall pay all governmental charges and inspection fees necessary for the prosecution of the Work which are applicable at the time of the submission of Contractor's Bid (or when Contractor became bound under a negotiated contract). Owner shall pay all charges of utility owners for connections for providing permanent service to the Work.

### 7.10 *Taxes*

- A. Contractor shall pay all sales, consumer, use, and other similar taxes required to be paid by Contractor in accordance with the Laws and Regulations of the place of the Project which are applicable during the performance of the Work.

### 7.11 *Laws and Regulations*

- A. Contractor shall give all notices required by and shall comply with all Laws and Regulations applicable to the performance of the Work. Neither Owner nor Engineer shall be responsible for monitoring Contractor's compliance with any Laws or Regulations.
- B. If Contractor performs any Work or takes any other action knowing or having reason to know that it is contrary to Laws or Regulations, Contractor shall bear all resulting costs and losses, and shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them, from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such Work or other action. It is not Contractor's responsibility to make certain that the Work described in the Contract Documents is in accordance with Laws and Regulations, but this does not relieve Contractor of its obligations under Paragraph 3.03.
- C. Owner or Contractor may give written notice to the other party of any changes after the submission of Contractor's Bid (or after the date when Contractor became bound under a negotiated contract) in Laws or Regulations having an effect on the cost or time of performance of the Work, including but not limited to changes in Laws or Regulations having an effect on procuring permits and on sales, use, value-added, consumption, and other similar taxes. If Owner and Contractor are unable to agree on entitlement to or on the amount or extent, if any, of any adjustment in Contract Price or Contract Times resulting from such changes, then within 30 days of such written notice Contractor may submit a Change Proposal, or Owner may initiate a Claim.

### 7.12 *Record Documents*

- A. Contractor shall maintain in a safe place at the Site one printed record copy of all Drawings, Specifications, Addenda, Change Orders, Work Change Directives, Field Orders, written interpretations and clarifications, and approved Shop Drawings. Contractor shall keep such record documents in good order and annotate them to show changes made during construction. These record documents, together with all approved Samples, will be available to Engineer for reference. Upon completion of the Work, Contractor shall deliver these record documents to Engineer.

### 7.13 *Safety and Protection*

- A. Contractor shall be solely responsible for initiating, maintaining, and supervising all safety precautions and programs in connection with the Work. Such responsibility does not relieve Subcontractors of their responsibility for the safety of persons or property in the performance of their work, nor for compliance with applicable safety Laws and Regulations.
- B. Contractor shall designate a qualified and experienced safety representative whose duties and responsibilities are the prevention of Work-related accidents and the maintenance and supervision of safety precautions and programs.
- C. Contractor shall take all necessary precautions for the safety of, and shall provide the necessary protection to prevent damage, injury, or loss to:
1. all persons on the Site or who may be affected by the Work;
  2. all the Work and materials and equipment to be incorporated therein, whether in storage on or off the Site; and
  3. other property at the Site or adjacent thereto, including trees, shrubs, lawns, walks, pavements, roadways, structures, other work in progress, utilities, and Underground Facilities not designated for removal, relocation, or replacement in the course of construction.
- D. All damage, injury, or loss to any property referred to in Paragraph 7.13.C.2 or 7.13.C.3 caused, directly or indirectly, in whole or in part, by Contractor, any Subcontractor, Supplier, or any other individual or entity directly or indirectly employed by any of them to perform any of the Work, or anyone for whose acts any of them may be liable, shall be remedied by Contractor at its expense (except damage or loss attributable to the fault of Drawings or Specifications or to the acts or omissions of Owner or Engineer or anyone employed by any of them, or anyone for whose acts any of them may be liable, and not attributable, directly or indirectly, in whole or in part, to the fault or negligence of Contractor or any Subcontractor, Supplier, or other individual or entity directly or indirectly employed by any of them).
- E. Contractor shall comply with all applicable Laws and Regulations relating to the safety of persons or property, or to the protection of persons or property from damage, injury, or loss; and shall erect and maintain all necessary safeguards for such safety and protection.

- F. Contractor shall notify Owner; the owners of adjacent property; the owners of Underground Facilities and other utilities (if the identity of such owners is known to Contractor); and other contractors and utility owners performing work at or adjacent to the Site, in writing, when Contractor knows that prosecution of the Work may affect them, and shall cooperate with them in the protection, removal, relocation, and replacement of their property or work in progress.
- G. Contractor shall comply with the applicable requirements of Owner's safety programs, if any. Any Owner's safety programs that are applicable to the Work are identified or included in the Supplementary Conditions or Specifications.
- H. Contractor shall inform Owner and Engineer of the specific requirements of Contractor's safety program with which Owner's and Engineer's employees and representatives must comply while at the Site.
- I. Contractor's duties and responsibilities for safety and protection will continue until all the Work is completed, Engineer has issued a written notice to Owner and Contractor in accordance with Paragraph 15.06.C that the Work is acceptable, and Contractor has left the Site (except as otherwise expressly provided in connection with Substantial Completion).
- J. Contractor's duties and responsibilities for safety and protection will resume whenever Contractor or any Subcontractor or Supplier returns to the Site to fulfill warranty or correction obligations, or to conduct other tasks arising from the Contract Documents.

7.14 *Hazard Communication Programs*

- A. Contractor shall be responsible for coordinating any exchange of safety data sheets (formerly known as material safety data sheets) or other hazard communication information required to be made available to or exchanged between or among employers at the Site in accordance with Laws or Regulations.

7.15 *Emergencies*

- A. In emergencies affecting the safety or protection of persons or the Work or property at the Site or adjacent thereto, Contractor is obligated to act to prevent damage, injury, or loss. Contractor shall give Engineer prompt written notice if Contractor believes that any significant changes in the Work or variations from the Contract Documents have been caused by an emergency, or are required as a result of Contractor's response to an emergency. If Engineer determines that a change in the Contract Documents is required because of an emergency or Contractor's response, a Work Change Directive or Change Order will be issued.

7.16 *Submittals*

A. *Shop Drawing and Sample Requirements*

1. Before submitting a Shop Drawing or Sample, Contractor shall:

- a. review and coordinate the Shop Drawing or Sample with other Shop Drawings and Samples and with the requirements of the Work and the Contract Documents;
  - b. determine and verify:
    - 1) all field measurements, quantities, dimensions, specified performance and design criteria, installation requirements, materials, catalog numbers, and similar information with respect to the Submittal;
    - 2) the suitability of all materials and equipment offered with respect to the indicated application, fabrication, shipping, handling, storage, assembly, and installation pertaining to the performance of the Work; and
    - 3) all information relative to Contractor's responsibilities for means, methods, techniques, sequences, and procedures of construction, and safety precautions and programs incident thereto;
  - c. confirm that the Submittal is complete with respect to all related data included in the Submittal.
2. Each Shop Drawing or Sample must bear a stamp or specific written certification that Contractor has satisfied Contractor's obligations under the Contract Documents with respect to Contractor's review of that Submittal, and that Contractor approves the Submittal.
  3. With each Shop Drawing or Sample, Contractor shall give Engineer specific written notice of any variations that the Submittal may have from the requirements of the Contract Documents. This notice must be set forth in a written communication separate from the Submittal; and, in addition, in the case of a Shop Drawing by a specific notation made on the Shop Drawing itself.
- B. *Submittal Procedures for Shop Drawings and Samples:* Contractor shall label and submit Shop Drawings and Samples to Engineer for review and approval in accordance with the accepted Schedule of Submittals.
1. *Shop Drawings*
    - a. Contractor shall submit the number of copies required in the Specifications.
    - b. Data shown on the Shop Drawings must be complete with respect to quantities, dimensions, specified performance and design criteria, materials, and similar data to show Engineer the services, materials, and equipment Contractor proposes to provide, and to enable Engineer to review the information for the limited purposes required by Paragraph 7.16.C.
  2. *Samples*
    - a. Contractor shall submit the number of Samples required in the Specifications.

- b. Contractor shall clearly identify each Sample as to material, Supplier, pertinent data such as catalog numbers, the use for which intended and other data as Engineer may require to enable Engineer to review the Submittal for the limited purposes required by Paragraph 7.16.C.
3. Where a Shop Drawing or Sample is required by the Contract Documents or the Schedule of Submittals, any related Work performed prior to Engineer's review and approval of the pertinent submittal will be at the sole expense and responsibility of Contractor.

*C. Engineer's Review of Shop Drawings and Samples*

1. Engineer will provide timely review of Shop Drawings and Samples in accordance with the accepted Schedule of Submittals. Engineer's review and approval will be only to determine if the items covered by the Submittals will, after installation or incorporation in the Work, comply with the requirements of the Contract Documents, and be compatible with the design concept of the completed Project as a functioning whole as indicated by the Contract Documents.
2. Engineer's review and approval will not extend to means, methods, techniques, sequences, or procedures of construction, or to safety precautions or programs incident thereto.
3. Engineer's review and approval of a separate item as such will not indicate approval of the assembly in which the item functions.
4. Engineer's review and approval of a Shop Drawing or Sample will not relieve Contractor from responsibility for any variation from the requirements of the Contract Documents unless Contractor has complied with the requirements of Paragraph 7.16.A.3 and Engineer has given written approval of each such variation by specific written notation thereof incorporated in or accompanying the Shop Drawing or Sample. Engineer will document any such approved variation from the requirements of the Contract Documents in a Field Order or other appropriate Contract modification.
5. Engineer's review and approval of a Shop Drawing or Sample will not relieve Contractor from responsibility for complying with the requirements of Paragraphs 7.16.A and B.
6. Engineer's review and approval of a Shop Drawing or Sample, or of a variation from the requirements of the Contract Documents, will not, under any circumstances, change the Contract Times or Contract Price, unless such changes are included in a Change Order.
7. Neither Engineer's receipt, review, acceptance, or approval of a Shop Drawing or Sample will result in such item becoming a Contract Document.
8. Contractor shall perform the Work in compliance with the requirements and commitments set forth in approved Shop Drawings and Samples, subject to the

provisions of Paragraph 7.16.C.4.

*D. Resubmittal Procedures for Shop Drawings and Samples*

1. Contractor shall make corrections required by Engineer and shall return the required number of corrected copies of Shop Drawings and submit, as required, new Samples for review and approval. Contractor shall direct specific attention in writing to revisions other than the corrections called for by Engineer on previous Submittals.
2. Contractor shall furnish required Shop Drawing and Sample submittals with sufficient information and accuracy to obtain required approval of an item with no more than two resubmittals. Engineer will record Engineer's time for reviewing a third or subsequent resubmittal of a Shop Drawing or Sample, and Contractor shall be responsible for Engineer's charges to Owner for such time. Owner may impose a set-off against payments due Contractor to secure reimbursement for such charges.
3. If Contractor requests a change of a previously approved Shop Drawing or Sample, Contractor shall be responsible for Engineer's charges to Owner for its review time, and Owner may impose a set-off against payments due Contractor to secure reimbursement for such charges, unless the need for such change is beyond the control of Contractor.

*E. Submittals Other than Shop Drawings, Samples, and Owner-Delegated Designs*

1. The following provisions apply to all Submittals other than Shop Drawings, Samples, and Owner-delegated designs:
  - a. Contractor shall submit all such Submittals to the Engineer in accordance with the Schedule of Submittals and pursuant to the applicable terms of the Contract Documents.
  - b. Engineer will provide timely review of all such Submittals in accordance with the Schedule of Submittals and return such Submittals with a notation of either Accepted or Not Accepted. Any such Submittal that is not returned within the time established in the Schedule of Submittals will be deemed accepted.
  - c. Engineer's review will be only to determine if the Submittal is acceptable under the requirements of the Contract Documents as to general form and content of the Submittal.
  - d. If any such Submittal is not accepted, Contractor shall confer with Engineer regarding the reason for the non-acceptance, and resubmit an acceptable document.
2. Procedures for the submittal and acceptance of the Progress Schedule, the Schedule of Submittals, and the Schedule of Values are set forth in Paragraphs 2.03, 2.04, and 2.05.

- F. Owner-delegated Designs: Submittals pursuant to Owner-delegated designs are governed by the provisions of Paragraph 7.19.

7.17 *Contractor's General Warranty and Guarantee*

- A. Contractor warrants and guarantees to Owner that all Work will be in accordance with the Contract Documents and will not be defective. Engineer is entitled to rely on Contractor's warranty and guarantee.
- B. Owner's rights under this warranty and guarantee are in addition to, and are not limited by, Owner's rights under the correction period provisions of Paragraph 15.08. The time in which Owner may enforce its warranty and guarantee rights under this Paragraph 7.17 is limited only by applicable Laws and Regulations restricting actions to enforce such rights; provided, however, that after the end of the correction period under Paragraph 15.08:
  - 1. Owner shall give Contractor written notice of any defective Work within 60 days of the discovery that such Work is defective; and
  - 2. Such notice will be deemed the start of an event giving rise to a Claim under Paragraph 12.01.B, such that any related Claim must be brought within 30 days of the notice.
- C. Contractor's warranty and guarantee hereunder excludes defects or damage caused by:
  - 1. abuse, or improper modification, maintenance, or operation, by persons other than Contractor, Subcontractors, Suppliers, or any other individual or entity for whom Contractor is responsible; or
  - 2. normal wear and tear under normal usage.
- D. Contractor's obligation to perform and complete the Work in accordance with the Contract Documents is absolute. None of the following will constitute an acceptance of Work that is not in accordance with the Contract Documents, a release of Contractor's obligation to perform the Work in accordance with the Contract Documents, or a release of Owner's warranty and guarantee rights under this Paragraph 7.17:
  - 1. Observations by Engineer;
  - 2. Recommendation by Engineer or payment by Owner of any progress or final payment;
  - 3. The issuance of a certificate of Substantial Completion by Engineer or any payment related thereto by Owner;
  - 4. Use or occupancy of the Work or any part thereof by Owner;
  - 5. Any review and approval of a Shop Drawing or Sample submittal;

6. The issuance of a notice of acceptability by Engineer;
  7. The end of the correction period established in Paragraph 15.08;
  8. Any inspection, test, or approval by others; or
  9. Any correction of defective Work by Owner.
- E. If the Contract requires the Contractor to accept the assignment of a contract entered into by Owner, then the specific warranties, guarantees, and correction obligations contained in the assigned contract will govern with respect to Contractor's performance obligations to Owner for the Work described in the assigned contract.

#### 7.18 *Indemnification*

- A. To the fullest extent permitted by Laws and Regulations, and in addition to any other obligations of Contractor under the Contract or otherwise, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them, from losses, damages, costs, and judgments (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals, and all court or arbitration or other dispute resolution costs) arising from third-party claims or actions relating to or resulting from the performance or furnishing of the Work, provided that any such claim, action, loss, cost, judgment or damage is attributable to bodily injury, sickness, disease, or death, or to damage to or destruction of tangible property (other than the Work itself), including the loss of use resulting therefrom, but only to the extent caused by any negligent act or omission of Contractor, any Subcontractor, any Supplier, or any individual or entity directly or indirectly employed by any of them to perform any of the Work, or anyone for whose acts any of them may be liable.
- B. In any and all claims against Owner or Engineer, or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors, by any employee (or the survivor or personal representative of such employee) of Contractor, any Subcontractor, any Supplier, or any individual or entity directly or indirectly employed by any of them to perform any of the Work, or anyone for whose acts any of them may be liable, the indemnification obligation under Paragraph 7.18.A will not be limited in any way by any limitation on the amount or type of damages, compensation, or benefits payable by or for Contractor or any such Subcontractor, Supplier, or other individual or entity under workers' compensation acts, disability benefit acts, or other employee benefit acts.

#### 7.19 *Delegation of Professional Design Services*

- A. Owner may require Contractor to provide professional design services for a portion of the Work by express delegation in the Contract Documents. Such delegation will specify the performance and design criteria that such services must satisfy, and the Submittals that Contractor must furnish to Engineer with respect to the Owner-delegated design.

- B. Contractor shall cause such Owner-delegated professional design services to be provided pursuant to the professional standard of care by a properly licensed design professional, whose signature and seal must appear on all drawings, calculations, specifications, certifications, and Submittals prepared by such design professional. Such design professional must issue all certifications of design required by Laws and Regulations.
- C. If a Shop Drawing or other Submittal related to the Owner-delegated design is prepared by Contractor, a Subcontractor, or others for submittal to Engineer, then such Shop Drawing or other Submittal must bear the written approval of Contractor's design professional when submitted by Contractor to Engineer.
- D. Owner and Engineer shall be entitled to rely upon the adequacy, accuracy, and completeness of the services, certifications, and approvals performed or provided by the design professionals retained or employed by Contractor under an Owner-delegated design, subject to the professional standard of care and the performance and design criteria stated in the Contract Documents.
- E. Pursuant to this Paragraph 7.19, Engineer's review, approval, and other determinations regarding design drawings, calculations, specifications, certifications, and other Submittals furnished by Contractor pursuant to an Owner-delegated design will be only for the following limited purposes:
  - 1. Checking for conformance with the requirements of this Paragraph 7.19;
  - 2. Confirming that Contractor (through its design professionals) has used the performance and design criteria specified in the Contract Documents; and
  - 3. Establishing that the design furnished by Contractor is consistent with the design concept expressed in the Contract Documents.
- F. Contractor shall not be responsible for the adequacy of performance or design criteria specified by Owner or Engineer.
- G. Contractor is not required to provide professional services in violation of applicable Laws and Regulations.

## ARTICLE 8 - OTHER WORK AT THE SITE

### 8.01 *Other Work*

- A. In addition to and apart from the Work under the Contract Documents, the Owner may perform other work at or adjacent to the Site. Such other work may be performed by Owner's employees, or through contracts between the Owner and third parties. Owner may also arrange to have third-party utility owners perform work on their utilities and facilities at or adjacent to the Site.
- B. If Owner performs other work at or adjacent to the Site with Owner's employees, or through contracts for such other work, then Owner shall give Contractor written notice thereof prior to starting any such other work. If Owner has advance

information regarding the start of any third-party utility work that Owner has arranged to take place at or adjacent to the Site, Owner shall provide such information to Contractor.

- C. Contractor shall afford proper and safe access to the Site to each contractor that performs such other work, each utility owner performing other work, and Owner, if Owner is performing other work with Owner's employees, and provide a reasonable opportunity for the introduction and storage of materials and equipment and the execution of such other work.
- D. Contractor shall do all cutting, fitting, and patching of the Work that may be required to properly connect or otherwise make its several parts come together and properly integrate with such other work. Contractor shall not endanger any work of others by cutting, excavating, or otherwise altering such work; provided, however, that Contractor may cut or alter others' work with the written consent of Engineer and the others whose work will be affected.
- E. If the proper execution or results of any part of Contractor's Work depends upon work performed by others, Contractor shall inspect such other work and promptly report to Engineer in writing any delays, defects, or deficiencies in such other work that render it unavailable or unsuitable for the proper execution and results of Contractor's Work. Contractor's failure to so report will constitute an acceptance of such other work as fit and proper for integration with Contractor's Work except for latent defects and deficiencies in such other work.
- F. The provisions of this article are not applicable to work that is performed by third-party utilities or other third-party entities without a contract with Owner, or that is performed without having been arranged by Owner. If such work occurs, then any related delay, disruption, or interference incurred by Contractor is governed by the provisions of Paragraph 4.05.C.3.

#### 8.02 *Coordination*

- A. If Owner intends to contract with others for the performance of other work at or adjacent to the Site, to perform other work at or adjacent to the Site with Owner's employees, or to arrange to have utility owners perform work at or adjacent to the Site, the following will be set forth in the Supplementary Conditions or provided to Contractor prior to the start of any such other work:
  - 1. The identity of the individual or entity that will have authority and responsibility for coordination of the activities among the various contractors;
  - 2. An itemization of the specific matters to be covered by such authority and responsibility; and
  - 3. The extent of such authority and responsibilities.
- B. Unless otherwise provided in the Supplementary Conditions, Owner shall have sole authority and responsibility for such coordination.

#### 8.03 *Legal Relationships*

- A. If, in the course of performing other work for Owner at or adjacent to the Site, the Owner's employees, any other contractor working for Owner, or any utility owner that Owner has arranged to perform work, causes damage to the Work or to the property of Contractor or its Subcontractors, or delays, disrupts, interferes with, or increases the scope or cost of the performance of the Work, through actions or inaction, then Contractor shall be entitled to an equitable adjustment in the Contract Price or the Contract Times. Contractor must submit any Change Proposal seeking an equitable adjustment in the Contract Price or the Contract Times under this paragraph within 30 days of the damaging, delaying, disrupting, or interfering event. The entitlement to, and extent of, any such equitable adjustment will take into account information (if any) regarding such other work that was provided to Contractor in the Contract Documents prior to the submittal of the Bid or the final negotiation of the terms of the Contract, and any remedies available to Contractor under Laws or Regulations concerning utility action or inaction. When applicable, any such equitable adjustment in Contract Price will be conditioned on Contractor assigning to Owner all Contractor's rights against such other contractor or utility owner with respect to the damage, delay, disruption, or interference that is the subject of the adjustment. Contractor's entitlement to an adjustment of the Contract Times or Contract Price is subject to the provisions of Paragraphs 4.05.D and 4.05.E.
- B. Contractor shall take reasonable and customary measures to avoid damaging, delaying, disrupting, or interfering with the work of Owner, any other contractor, or any utility owner performing other work at or adjacent to the Site.
1. If Contractor fails to take such measures and as a result damages, delays, disrupts, or interferes with the work of any such other contractor or utility owner, then Owner may impose a set-off against payments due Contractor, and assign to such other contractor or utility owner the Owner's contractual rights against Contractor with respect to the breach of the obligations set forth in this Paragraph 8.03.B.
  2. When Owner is performing other work at or adjacent to the Site with Owner's employees, Contractor shall be liable to Owner for damage to such other work, and for the reasonable direct delay, disruption, and interference costs incurred by Owner as a result of Contractor's failure to take reasonable and customary measures with respect to Owner's other work. In response to such damage, delay, disruption, or interference, Owner may impose a set-off against payments due Contractor.
- C. If Contractor damages, delays, disrupts, or interferes with the work of any other contractor, or any utility owner performing other work at or adjacent to the Site, through Contractor's failure to take reasonable and customary measures to avoid such impacts, or if any claim arising out of Contractor's actions, inactions, or negligence in performance of the Work at or adjacent to the Site is made by any such other contractor or utility owner against Contractor, Owner, or Engineer, then Contractor shall (1) promptly attempt to settle the claim as to all parties through negotiations with such other contractor or utility owner, or otherwise resolve the claim by arbitration or other dispute resolution proceeding or at law, and (2) indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners,

employees, agents, consultants and subcontractors of each and any of them from and against any such claims, and against all costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such damage, delay, disruption, or interference.

## ARTICLE 9 - OWNER'S RESPONSIBILITIES

### 9.01 *Communications to Contractor*

- A. Except as otherwise provided in these General Conditions, Owner shall issue all communications to Contractor through Engineer.

### 9.02 *Replacement of Engineer*

- A. Owner may at its discretion appoint an engineer to replace Engineer, provided Contractor makes no reasonable objection to the replacement engineer. The replacement engineer's status under the Contract Documents will be that of the former Engineer.

### 9.03 *Furnish Data*

- A. Owner shall promptly furnish the data required of Owner under the Contract Documents.

### 9.04 *Pay When Due*

- A. Owner shall make payments to Contractor when they are due as provided in the Agreement.

### 9.05 *Lands and Easements; Reports, Tests, and Drawings*

- A. Owner's duties with respect to providing lands and easements are set forth in Paragraph 5.01.
- B. Owner's duties with respect to providing engineering surveys to establish reference points are set forth in Paragraph 4.03.
- C. Article 5 refers to Owner's identifying and making available to Contractor copies of reports of explorations and tests of conditions at the Site, and drawings of physical conditions relating to existing surface or subsurface structures at the Site.

### 9.06 *Insurance*

- A. Owner's responsibilities, if any, with respect to purchasing and maintaining liability and property insurance are set forth in Article 6.

### 9.07 *Change Orders*

- A. Owner's responsibilities with respect to Change Orders are set forth in Article 11.

9.08 *Inspections, Tests, and Approvals*

- A. Owner's responsibility with respect to certain inspections, tests, and approvals is set forth in Paragraph 14.02.B.

9.09 *Limitations on Owner's Responsibilities*

- A. The Owner shall not supervise, direct, or have control or authority over, nor be responsible for, Contractor's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of Contractor to comply with Laws and Regulations applicable to the performance of the Work. Owner will not be responsible for Contractor's failure to perform the Work in accordance with the Contract Documents.

9.10 *Undisclosed Hazardous Environmental Condition*

- A. Owner's responsibility in respect to an undisclosed Hazardous Environmental Condition is set forth in Paragraph 5.06.

9.11 *Evidence of Financial Arrangements*

- A. Upon request of Contractor, Owner shall furnish Contractor reasonable evidence that financial arrangements have been made to satisfy Owner's obligations under the Contract (including obligations under proposed changes in the Work).

9.12 *Safety Programs*

- A. While at the Site, Owner's employees and representatives shall comply with the specific applicable requirements of Contractor's safety programs of which Owner has been informed.
- B. Owner shall furnish copies of any applicable Owner safety programs to Contractor.

**ARTICLE 10 - ENGINEER'S STATUS DURING CONSTRUCTION**

10.01 *Owner's Representative*

- A. Engineer will be Owner's representative during the construction period. The duties and responsibilities and the limitations of authority of Engineer as Owner's representative during construction are set forth in the Contract.

10.02 *Visits to Site*

- A. Engineer will make visits to the Site at intervals appropriate to the various stages of construction as Engineer deems necessary in order to observe, as an experienced and qualified design professional, the progress that has been made and the quality of the various aspects of Contractor's executed Work. Based on information obtained during such visits and observations, Engineer, for the benefit of Owner, will determine, in general, if the Work is proceeding in accordance with the Contract Documents. Engineer will not be required to make exhaustive or continuous

inspections on the Site to check the quality or quantity of the Work. Engineer's efforts will be directed toward providing for Owner a greater degree of confidence that the completed Work will conform generally to the Contract Documents. On the basis of such visits and observations, Engineer will keep Owner informed of the progress of the Work and will endeavor to guard Owner against defective Work.

- B. Engineer's visits and observations are subject to all the limitations on Engineer's authority and responsibility set forth in Paragraph 10.07. Particularly, but without limitation, during or as a result of Engineer's visits or observations of Contractor's Work, Engineer will not supervise, direct, control, or have authority over or be responsible for Contractor's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of Contractor to comply with Laws and Regulations applicable to the performance of the Work.

#### 10.03 *Resident Project Representative*

- A. If Owner and Engineer have agreed that Engineer will furnish a Resident Project Representative to represent Engineer at the Site and assist Engineer in observing the progress and quality of the Work, then the authority and responsibilities of any such Resident Project Representative will be as provided in the Supplementary Conditions, and limitations on the responsibilities thereof will be as provided in the Supplementary Conditions and in Paragraph 10.07.
- B. If Owner designates an individual or entity who is not Engineer's consultant, agent, or employee to represent Owner at the Site, then the responsibilities and authority of such individual or entity will be as provided in the Supplementary Conditions.

#### 10.04 *Engineer's Authority*

- A. Engineer has the authority to reject Work in accordance with Article 14.
- B. Engineer's authority as to Submittals is set forth in Paragraph 7.16.
- C. Engineer's authority as to design drawings, calculations, specifications, certifications and other Submittals from Contractor in response to Owner's delegation (if any) to Contractor of professional design services, is set forth in Paragraph 7.19.
- D. Engineer's authority as to changes in the Work is set forth in Article 11.
- E. Engineer's authority as to Applications for Payment is set forth in Article 15.

#### 10.05 *Determinations for Unit Price Work*

- A. Engineer will determine the actual quantities and classifications of Unit Price Work performed by Contractor as set forth in Paragraph 13.03.

#### 10.06 *Decisions on Requirements of Contract Documents and Acceptability of Work*

- A. Engineer will render decisions regarding the requirements of the Contract Documents, and judge the acceptability of the Work, pursuant to the specific

procedures set forth herein for initial interpretations, Change Proposals, and acceptance of the Work. In rendering such decisions and judgments, Engineer will not show partiality to Owner or Contractor, and will not be liable to Owner, Contractor, or others in connection with any proceedings, interpretations, decisions, or judgments conducted or rendered in good faith.

**10.07** *Limitations on Engineer's Authority and Responsibilities*

- A. Neither Engineer's authority or responsibility under this Article 10 or under any other provision of the Contract, nor any decision made by Engineer in good faith either to exercise or not exercise such authority or responsibility or the undertaking, exercise, or performance of any authority or responsibility by Engineer, will create, impose, or give rise to any duty in contract, tort, or otherwise owed by Engineer to Contractor, any Subcontractor, any Supplier, any other individual or entity, or to any surety for or employee or agent of any of them.
- B. Engineer will not supervise, direct, control, or have authority over or be responsible for Contractor's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of Contractor to comply with Laws and Regulations applicable to the performance of the Work. Engineer will not be responsible for Contractor's failure to perform the Work in accordance with the Contract Documents.
- C. Engineer will not be responsible for the acts or omissions of Contractor or of any Subcontractor, any Supplier, or of any other individual or entity performing any of the Work.
- D. Engineer's review of the final Application for Payment and accompanying documentation, and all maintenance and operating instructions, schedules, guarantees, bonds, certificates of inspection, tests and approvals, and other documentation required to be delivered by Contractor under Paragraph 15.06.A, will only be to determine generally that their content complies with the requirements of, and in the case of certificates of inspections, tests, and approvals, that the results certified indicate compliance with the Contract Documents.
- E. The limitations upon authority and responsibility set forth in this Paragraph 10.07 also apply to the Resident Project Representative, if any.

**10.08** *Compliance with Safety Program*

- A. While at the Site, Engineer's employees and representatives will comply with the specific applicable requirements of Owner's and Contractor's safety programs of which Engineer has been informed.

**ARTICLE 11 - CHANGES TO THE CONTRACT**

**11.01** *Amending and Supplementing the Contract*

- A. The Contract may be amended or supplemented by a Change Order, a Work Change Directive, or a Field Order.

- B. If an amendment or supplement to the Contract includes a change in the Contract Price or the Contract Times, such amendment or supplement must be set forth in a Change Order.
- C. All changes to the Contract that involve (1) the performance or acceptability of the Work, (2) the design (as set forth in the Drawings, Specifications, or otherwise), or (3) other engineering or technical matters, must be supported by Engineer's recommendation. Owner and Contractor may amend other terms and conditions of the Contract without the recommendation of the Engineer.

#### 11.02 *Change Orders*

- A. Owner and Contractor shall execute appropriate Change Orders covering:
  1. Changes in Contract Price or Contract Times which are agreed to by the parties, including any undisputed sum or amount of time for Work actually performed in accordance with a Work Change Directive;
  2. Changes in Contract Price resulting from an Owner set-off, unless Contractor has duly contested such set-off;
  3. Changes in the Work which are: (a) ordered by Owner pursuant to Paragraph 11.05, (b) required because of Owner's acceptance of defective Work under Paragraph 14.04 or Owner's correction of defective Work under Paragraph 14.07, or (c) agreed to by the parties, subject to the need for Engineer's recommendation if the change in the Work involves the design (as set forth in the Drawings, Specifications, or otherwise) or other engineering or technical matters; and
  4. Changes that embody the substance of any final and binding results under: Paragraph 11.03.B, resolving the impact of a Work Change Directive; Paragraph 11.09, concerning Change Proposals; Article 12, Claims; Paragraph 13.02.D, final adjustments resulting from allowances; Paragraph 13.03.D, final adjustments relating to determination of quantities for Unit Price Work; and similar provisions.
- B. If Owner or Contractor refuses to execute a Change Order that is required to be executed under the terms of Paragraph 11.02.A, it will be deemed to be of full force and effect, as if fully executed.

#### 11.03 *Work Change Directives*

- A. A Work Change Directive will not change the Contract Price or the Contract Times but is evidence that the parties expect that the modification ordered or documented by a Work Change Directive will be incorporated in a subsequently issued Change Order, following negotiations by the parties as to the Work Change Directive's effect, if any, on the Contract Price and Contract Times; or, if negotiations are unsuccessful, by a determination under the terms of the Contract Documents governing adjustments, expressly including Paragraph 11.07 regarding change of Contract Price.

- B. If Owner has issued a Work Change Directive and:
  - 1. Contractor believes that an adjustment in Contract Times or Contract Price is necessary, then Contractor shall submit any Change Proposal seeking such an adjustment no later than 30 days after the completion of the Work set out in the Work Change Directive.
  - 2. Owner believes that an adjustment in Contract Times or Contract Price is necessary, then Owner shall submit any Claim seeking such an adjustment no later than 60 days after issuance of the Work Change Directive.

11.04 *Field Orders*

- A. Engineer may authorize minor changes in the Work if the changes do not involve an adjustment in the Contract Price or the Contract Times and are compatible with the design concept of the completed Project as a functioning whole as indicated by the Contract Documents. Such changes will be accomplished by a Field Order and will be binding on Owner and also on Contractor, which shall perform the Work involved promptly.
- B. If Contractor believes that a Field Order justifies an adjustment in the Contract Price or Contract Times, then before proceeding with the Work at issue, Contractor shall submit a Change Proposal as provided herein.

11.05 *Owner-Authorized Changes in the Work*

- A. Without invalidating the Contract and without notice to any surety, Owner may, at any time or from time to time, order additions, deletions, or revisions in the Work. Changes involving the design (as set forth in the Drawings, Specifications, or otherwise) or other engineering or technical matters will be supported by Engineer's recommendation.
- B. Such changes in the Work may be accomplished by a Change Order, if Owner and Contractor have agreed as to the effect, if any, of the changes on Contract Times or Contract Price; or by a Work Change Directive. Upon receipt of any such document, Contractor shall promptly proceed with the Work involved; or, in the case of a deletion in the Work, promptly cease construction activities with respect to such deleted Work. Added or revised Work must be performed under the applicable conditions of the Contract Documents.
- C. Nothing in this Paragraph 11.05 obligates Contractor to undertake work that Contractor reasonably concludes cannot be performed in a manner consistent with Contractor's safety obligations under the Contract Documents or Laws and Regulations.

11.06 *Unauthorized Changes in the Work*

- A. Contractor shall not be entitled to an increase in the Contract Price or an extension of the Contract Times with respect to any work performed that is not required by the Contract Documents, as amended, modified, or supplemented, except in the case of

an emergency as provided in Paragraph 7.15 or in the case of uncovering Work as provided in Paragraph 14.05.C.2.

#### 11.07 *Change of Contract Price*

- A. The Contract Price may only be changed by a Change Order. Any Change Proposal for an adjustment in the Contract Price must comply with the provisions of Paragraph 11.09. Any Claim for an adjustment of Contract Price must comply with the provisions of Article 12.
- B. An adjustment in the Contract Price will be determined as follows:
1. Where the Work involved is covered by unit prices contained in the Contract Documents, then by application of such unit prices to the quantities of the items involved (subject to the provisions of Paragraph 13.03);
  2. Where the Work involved is not covered by unit prices contained in the Contract Documents, then by a mutually agreed lump sum (which may include an allowance for overhead and profit not necessarily in accordance with Paragraph 11.07.C.2); or
  3. Where the Work involved is not covered by unit prices contained in the Contract Documents and the parties do not reach mutual agreement to a lump sum, then on the basis of the Cost of the Work (determined as provided in Paragraph 13.01) plus a Contractor's fee for overhead and profit (determined as provided in Paragraph 11.07.C).
- C. *Contractor's Fee*: When applicable, the Contractor's fee for overhead and profit will be determined as follows:
1. A mutually acceptable fixed fee; or
  2. If a fixed fee is not agreed upon, then a fee based on the following percentages of the various portions of the Cost of the Work:
    - a. For costs incurred under Paragraphs 13.01.B.1 and 13.01.B.2, the Contractor's fee will be 15 percent;
    - b. For costs incurred under Paragraph 13.01.B.3, the Contractor's fee will be 5 percent;
    - c. Where one or more tiers of subcontracts are on the basis of Cost of the Work plus a fee and no fixed fee is agreed upon, the intent of Paragraphs 11.07.C.2.a and 11.07.C.2.b is that the Contractor's fee will be based on: (1) a fee of 15 percent of the costs incurred under Paragraphs 13.01.B.1 and 13.01.B.2 by the Subcontractor that actually performs the Work, at whatever tier, and (2) with respect to Contractor itself and to any Subcontractors of a tier higher than that of the Subcontractor that actually performs the Work, a fee of 5 percent of the amount (fee plus underlying costs incurred) attributable to the next lower tier Subcontractor; provided, however, that for any such subcontracted Work the maximum total

fee to be paid by Owner will be no greater than 27 percent of the costs incurred by the Subcontractor that actually performs the Work;

- d. No fee will be payable on the basis of costs itemized under Paragraphs 13.01.B.4, 13.01.B.5, and 13.01.C;
- e. The amount of credit to be allowed by Contractor to Owner for any change which results in a net decrease in Cost of the Work will be the amount of the actual net decrease in Cost of the Work and a deduction of an additional amount equal to 5 percent of such actual net decrease in Cost of the Work; and
- f. When both additions and credits are involved in any one change or Change Proposal, the adjustment in Contractor's fee will be computed by determining the sum of the costs in each of the cost categories in Paragraph 13.01.B (specifically, payroll costs, Paragraph 13.01.B.1; incorporated materials and equipment costs, Paragraph 13.01.B.2; Subcontract costs, Paragraph 13.01.B.3; special consultants costs, Paragraph 13.01.B.4; and other costs, Paragraph 13.01.B.5) and applying to each such cost category sum the appropriate fee from Paragraphs 11.07.C.2.a through 11.07.C.2.e, inclusive.

#### 11.08 *Change of Contract Times*

- A. The Contract Times may only be changed by a Change Order. Any Change Proposal for an adjustment in the Contract Times must comply with the provisions of Paragraph 11.09. Any Claim for an adjustment in the Contract Times must comply with the provisions of Article 12.
- B. Delay, disruption, and interference in the Work, and any related changes in Contract Times, are addressed in and governed by Paragraph 4.05.

#### 11.09 *Change Proposals*

- A. *Purpose and Content:* Contractor shall submit a Change Proposal to Engineer to request an adjustment in the Contract Times or Contract Price; contest an initial decision by Engineer concerning the requirements of the Contract Documents or relating to the acceptability of the Work under the Contract Documents; challenge a set-off against payment due; or seek other relief under the Contract. The Change Proposal will specify any proposed change in Contract Times or Contract Price, or other proposed relief, and explain the reason for the proposed change, with citations to any governing or applicable provisions of the Contract Documents. Each Change Proposal will address only one issue, or a set of closely related issues.
- B. *Change Proposal Procedures*
  - 1. *Submittal:* Contractor shall submit each Change Proposal to Engineer within 30 days after the start of the event giving rise thereto, or after such initial decision.
  - 2. *Supporting Data:* The Contractor shall submit supporting data, including the proposed change in Contract Price or Contract Time (if any), to the Engineer and

Owner within 15 days after the submittal of the Change Proposal.

- a. Change Proposals based on or related to delay, interruption, or interference must comply with the provisions of Paragraphs 4.05.D and 4.05.E.
- b. Change proposals related to a change of Contract Price must include full and detailed accounts of materials incorporated into the Work and labor and equipment used for the subject Work.

The supporting data must be accompanied by a written statement that the supporting data are accurate and complete, and that any requested time or price adjustment is the entire adjustment to which Contractor believes it is entitled as a result of said event.

3. *Engineer's Initial Review:* Engineer will advise Owner regarding the Change Proposal, and consider any comments or response from Owner regarding the Change Proposal. If in its discretion Engineer concludes that additional supporting data is needed before conducting a full review and making a decision regarding the Change Proposal, then Engineer may request that Contractor submit such additional supporting data by a date specified by Engineer, prior to Engineer beginning its full review of the Change Proposal.
  4. *Engineer's Full Review and Action on the Change Proposal:* Upon receipt of Contractor's supporting data (including any additional data requested by Engineer), Engineer will conduct a full review of each Change Proposal and, within 30 days after such receipt of the Contractor's supporting data, either approve the Change Proposal in whole, deny it in whole, or approve it in part and deny it in part. Such actions must be in writing, with a copy provided to Owner and Contractor. If Engineer does not take action on the Change Proposal within 30 days, then either Owner or Contractor may at any time thereafter submit a letter to the other party indicating that as a result of Engineer's inaction the Change Proposal is deemed denied, thereby commencing the time for appeal of the denial under Article 12.
  5. *Binding Decision:* Engineer's decision is final and binding upon Owner and Contractor, unless Owner or Contractor appeals the decision by filing a Claim under Article 12.
- C. *Resolution of Certain Change Proposals:* If the Change Proposal does not involve the design (as set forth in the Drawings, Specifications, or otherwise), the acceptability of the Work, or other engineering or technical matters, then Engineer will notify the parties in writing that the Engineer is unable to resolve the Change Proposal. For purposes of further resolution of such a Change Proposal, such notice will be deemed a denial, and Contractor may choose to seek resolution under the terms of Article 12.
- D. *Post-Completion:* Contractor shall not submit any Change Proposals after Engineer issues a written recommendation of final payment pursuant to Paragraph 15.06.B.

#### 11.10 Notification to Surety

- A. If the provisions of any bond require notice to be given to a surety of any change affecting the general scope of the Work or the provisions of the Contract Documents (including, but not limited to, Contract Price or Contract Times), the giving of any such notice will be Contractor's responsibility. The amount of each applicable bond will be adjusted to reflect the effect of any such change.

## ARTICLE 12 - CLAIMS

### 12.01 *Claims*

- A. *Claims Process:* The following disputes between Owner and Contractor are subject to the Claims process set forth in this article:
1. Appeals by Owner or Contractor of Engineer's decisions regarding Change Proposals;
  2. Owner demands for adjustments in the Contract Price or Contract Times, or other relief under the Contract Documents;
  3. Disputes that Engineer has been unable to address because they do not involve the design (as set forth in the Drawings, Specifications, or otherwise), the acceptability of the Work, or other engineering or technical matters; and
  4. Subject to the waiver provisions of Paragraph 15.07, any dispute arising after Engineer has issued a written recommendation of final payment pursuant to Paragraph 15.06.B.
- B. *Submittal of Claim:* The party submitting a Claim shall deliver it directly to the other party to the Contract promptly (but in no event later than 30 days) after the start of the event giving rise thereto; in the case of appeals regarding Change Proposals within 30 days of the decision under appeal. The party submitting the Claim shall also furnish a copy to the Engineer, for its information only. The responsibility to substantiate a Claim rests with the party making the Claim. In the case of a Claim by Contractor seeking an increase in the Contract Times or Contract Price, Contractor shall certify that the Claim is made in good faith, that the supporting data are accurate and complete, and that to the best of Contractor's knowledge and belief the amount of time or money requested accurately reflects the full amount to which Contractor is entitled.
- C. *Review and Resolution:* The party receiving a Claim shall review it thoroughly, giving full consideration to its merits. The two parties shall seek to resolve the Claim through the exchange of information and direct negotiations. The parties may extend the time for resolving the Claim by mutual agreement. All actions taken on a Claim will be stated in writing and submitted to the other party, with a copy to Engineer.
- D. *Mediation*
1. At any time after initiation of a Claim, Owner and Contractor may mutually agree to mediation of the underlying dispute. The agreement to mediate will stay the Claim submittal and response process.

2. If Owner and Contractor agree to mediation, then after 60 days from such agreement, either Owner or Contractor may unilaterally terminate the mediation process, and the Claim submittal and decision process will resume as of the date of the termination. If the mediation proceeds but is unsuccessful in resolving the dispute, the Claim submittal and decision process will resume as of the date of the conclusion of the mediation, as determined by the mediator.
  3. Owner and Contractor shall each pay one-half of the mediator's fees and costs.
- E. *Partial Approval*: If the party receiving a Claim approves the Claim in part and denies it in part, such action will be final and binding unless within 30 days of such action the other party invokes the procedure set forth in Article 17 for final resolution of disputes.
- F. *Denial of Claim*: If efforts to resolve a Claim are not successful, the party receiving the Claim may deny it by giving written notice of denial to the other party. If the receiving party does not take action on the Claim within 90 days, then either Owner or Contractor may at any time thereafter submit a letter to the other party indicating that as a result of the inaction, the Claim is deemed denied, thereby commencing the time for appeal of the denial. A denial of the Claim will be final and binding unless within 30 days of the denial the other party invokes the procedure set forth in Article 17 for the final resolution of disputes.
- G. *Final and Binding Results*: If the parties reach a mutual agreement regarding a Claim, whether through approval of the Claim, direct negotiations, mediation, or otherwise; or if a Claim is approved in part and denied in part, or denied in full, and such actions become final and binding; then the results of the agreement or action on the Claim will be incorporated in a Change Order or other written document to the extent they affect the Contract, including the Work, the Contract Times, or the Contract Price.

## ARTICLE 13 - COST OF THE WORK; ALLOWANCES; UNIT PRICE WORK

### 13.01 *Cost of the Work*

- A. *Purposes for Determination of Cost of the Work*: The term Cost of the Work means the sum of all costs necessary for the proper performance of the Work at issue, as further defined below. The provisions of this Paragraph 13.01 are used for two distinct purposes:
1. To determine Cost of the Work when Cost of the Work is a component of the Contract Price, under cost-plus-fee, time-and-materials, or other cost-based terms; or
  2. When needed to determine the value of a Change Order, Change Proposal, Claim, set-off, or other adjustment in Contract Price. When the value of any such adjustment is determined on the basis of Cost of the Work, Contractor is entitled only to those additional or incremental costs required because of the change in the Work or because of the event giving rise to the adjustment.

- B. *Costs Included:* Except as otherwise may be agreed to in writing by Owner, costs included in the Cost of the Work will be in amounts no higher than those commonly incurred in the locality of the Project, will not include any of the costs itemized in Paragraph 13.01.C, and will include only the following items:
1. Payroll costs for employees in the direct employ of Contractor in the performance of the Work under schedules of job classifications agreed upon by Owner and Contractor in advance of the subject Work. Such employees include, without limitation, superintendents, foremen, safety managers, safety representatives, and other personnel employed full time on the Work. Payroll costs for employees not employed full time on the Work will be apportioned on the basis of their time spent on the Work. Payroll costs include, but are not limited to, salaries and wages plus the cost of fringe benefits, which include social security contributions, unemployment, excise, and payroll taxes, workers' compensation, health and retirement benefits, sick leave, and vacation and holiday pay applicable thereto. The expenses of performing Work outside of regular working hours, on Saturday, Sunday, or legal holidays, will be included in the above to the extent authorized by Owner.
  2. Cost of all materials and equipment furnished and incorporated in the Work, including costs of transportation and storage thereof, and Suppliers' field services required in connection therewith. All cash discounts accrue to Contractor unless Owner deposits funds with Contractor with which to make payments, in which case the cash discounts will accrue to Owner. All trade discounts, rebates, and refunds and returns from sale of surplus materials and equipment will accrue to Owner, and Contractor shall make provisions so that they may be obtained.
  3. Payments made by Contractor to Subcontractors for Work performed by Subcontractors. If required by Owner, Contractor shall obtain competitive bids from subcontractors acceptable to Owner and Contractor and shall deliver such bids to Owner, which will then determine, with the advice of Engineer, which bids, if any, will be acceptable. If any subcontract provides that the Subcontractor is to be paid on the basis of Cost of the Work plus a fee, the Subcontractor's Cost of the Work and fee will be determined in the same manner as Contractor's Cost of the Work and fee as provided in this Paragraph 13.01.
  4. Costs of special consultants (including but not limited to engineers, architects, testing laboratories, surveyors, attorneys, and accountants) employed or retained for services specifically related to the Work.
  5. Other costs consisting of the following:
    - a. The proportion of necessary transportation, travel, and subsistence expenses of Contractor's employees incurred in discharge of duties connected with the Work.
    - b. Cost, including transportation and maintenance, of all materials, supplies, equipment, machinery, appliances, office, and temporary facilities at the Site, which are consumed in the performance of the Work, and cost, less market

value, of such items used but not consumed which remain the property of Contractor.

- 1) In establishing included costs for materials such as scaffolding, plating, or sheeting, consideration will be given to the actual or the estimated life of the material for use on other projects; or rental rates may be established on the basis of purchase or salvage value of such items, whichever is less. Contractor will not be eligible for compensation for such items in an amount that exceeds the purchase cost of such item.

c. *Construction Equipment Rental*

- 1) Rentals of all construction equipment and machinery, and the parts thereof, in accordance with rental agreements approved by Owner as to price (including any surcharge or special rates applicable to overtime use of the construction equipment or machinery), and the costs of transportation, loading, unloading, assembly, dismantling, and removal thereof. All such costs will be in accordance with the terms of said rental agreements. The rental of any such equipment, machinery, or parts must cease when the use thereof is no longer necessary for the Work.
  - 2) Costs for equipment and machinery owned by Contractor or a Contractor-related entity will be paid at a rate shown for such equipment in the equipment rental rate book specified in the Supplementary Conditions. An hourly rate will be computed by dividing the monthly rates by 176. These computed rates will include all operating costs.
  - 3) With respect to Work that is the result of a Change Order, Change Proposal, Claim, set-off, or other adjustment in Contract Price ("changed Work"), included costs will be based on the time the equipment or machinery is in use on the changed Work and the costs of transportation, loading, unloading, assembly, dismantling, and removal when directly attributable to the changed Work. The cost of any such equipment or machinery, or parts thereof, must cease to accrue when the use thereof is no longer necessary for the changed Work.
- d. Sales, consumer, use, and other similar taxes related to the Work, and for which Contractor is liable, as imposed by Laws and Regulations.
- e. Deposits lost for causes other than negligence of Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable, and royalty payments and fees for permits and licenses.
- f. Losses and damages (and related expenses) caused by damage to the Work, not compensated by insurance or otherwise, sustained by Contractor in connection with the performance of the Work (except losses and damages within the deductible amounts of builder's risk or other property insurance established in accordance with Paragraph 6.04), provided such losses and damages have resulted from causes other than the negligence of Contractor,

any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable. Such losses include settlements made with the written consent and approval of Owner. No such losses, damages, and expenses will be included in the Cost of the Work for the purpose of determining Contractor's fee.

- g. The cost of utilities, fuel, and sanitary facilities at the Site.
- h. Minor expenses such as communication service at the Site, express and courier services, and similar petty cash items in connection with the Work.
- i. The costs of premiums for all bonds and insurance that Contractor is required by the Contract Documents to purchase and maintain.

C. *Costs Excluded:* The term Cost of the Work does not include any of the following items:

1. Payroll costs and other compensation of Contractor's officers, executives, principals, general managers, engineers, architects, estimators, attorneys, auditors, accountants, purchasing and contracting agents, expeditors, timekeepers, clerks, and other personnel employed by Contractor, whether at the Site or in Contractor's principal or branch office for general administration of the Work and not specifically included in the agreed upon schedule of job classifications referred to in Paragraph 13.01.B.1 or specifically covered by Paragraph 13.01.B.4. The payroll costs and other compensation excluded here are to be considered administrative costs covered by the Contractor's fee.
2. The cost of purchasing, renting, or furnishing small tools and hand tools.
3. Expenses of Contractor's principal and branch offices other than Contractor's office at the Site.
4. Any part of Contractor's capital expenses, including interest on Contractor's capital employed for the Work and charges against Contractor for delinquent payments.
5. Costs due to the negligence of Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable, including but not limited to, the correction of defective Work, disposal of materials or equipment wrongly supplied, and making good any damage to property.
6. Expenses incurred in preparing and advancing Claims.
7. Other overhead or general expense costs of any kind and the costs of any item not specifically and expressly included in Paragraph 13.01.B.

D. *Contractor's Fee*

1. When the Work as a whole is performed on the basis of cost-plus-a-fee, then:

- a. Contractor's fee for the Work set forth in the Contract Documents as of the Effective Date of the Contract will be determined as set forth in the Agreement.
  - b. for any Work covered by a Change Order, Change Proposal, Claim, set-off, or other adjustment in Contract Price on the basis of Cost of the Work, Contractor's fee will be determined as follows:
    - 1) When the fee for the Work as a whole is a percentage of the Cost of the Work, the fee will automatically adjust as the Cost of the Work changes.
    - 2) When the fee for the Work as a whole is a fixed fee, the fee for any additions or deletions will be determined in accordance with Paragraph 11.07.C.2.
2. When the Work as a whole is performed on the basis of a stipulated sum, or any other basis other than cost-plus-a-fee, then Contractor's fee for any Work covered by a Change Order, Change Proposal, Claim, set-off, or other adjustment in Contract Price on the basis of Cost of the Work will be determined in accordance with Paragraph 11.07.C.2.
- E. *Documentation and Audit:* Whenever the Cost of the Work for any purpose is to be determined pursuant to this Article 13, Contractor and pertinent Subcontractors will establish and maintain records of the costs in accordance with generally accepted accounting practices. Subject to prior written notice, Owner will be afforded reasonable access, during normal business hours, to all Contractor's accounts, records, books, correspondence, instructions, drawings, receipts, vouchers, memoranda, and similar data relating to the Cost of the Work and Contractor's fee. Contractor shall preserve all such documents for a period of three years after the final payment by Owner. Pertinent Subcontractors will afford such access to Owner, and preserve such documents, to the same extent required of Contractor.

### 13.02 Allowances

- A. It is understood that Contractor has included in the Contract Price all allowances so named in the Contract Documents and shall cause the Work so covered to be performed for such sums and by such persons or entities as may be acceptable to Owner and Engineer.
- B. *Cash Allowances:* Contractor agrees that:
1. the cash allowances include the cost to Contractor (less any applicable trade discounts) of materials and equipment required by the allowances to be delivered at the Site, and all applicable taxes; and
  2. Contractor's costs for unloading and handling on the Site, labor, installation, overhead, profit, and other expenses contemplated for the cash allowances have been included in the Contract Price and not in the allowances, and no demand for additional payment for any of the foregoing will be valid.

- C. *Owner's Contingency Allowance*: Contractor agrees that an Owner's contingency allowance, if any, is for the sole use of Owner to cover unanticipated costs.
- D. Prior to final payment, an appropriate Change Order will be issued as recommended by Engineer to reflect actual amounts due Contractor for Work covered by allowances, and the Contract Price will be correspondingly adjusted.

### 13.03 *Unit Price Work*

- A. Where the Contract Documents provide that all or part of the Work is to be Unit Price Work, initially the Contract Price will be deemed to include for all Unit Price Work an amount equal to the sum of the unit price for each separately identified item of Unit Price Work times the estimated quantity of each item as indicated in the Agreement.
- B. The estimated quantities of items of Unit Price Work are not guaranteed and are solely for the purpose of comparison of Bids and determining an initial Contract Price. Payments to Contractor for Unit Price Work will be based on actual quantities.
- C. Each unit price will be deemed to include an amount considered by Contractor to be adequate to cover Contractor's overhead and profit for each separately identified item.
- D. Engineer will determine the actual quantities and classifications of Unit Price Work performed by Contractor. Engineer will review with Contractor the Engineer's preliminary determinations on such matters before rendering a written decision thereon (by recommendation of an Application for Payment or otherwise). Engineer's written decision thereon will be final and binding (except as modified by Engineer to reflect changed factual conditions or more accurate data) upon Owner and Contractor, and the final adjustment of Contract Price will be set forth in a Change Order, subject to the provisions of the following paragraph.
- E. *Adjustments in Unit Price*
  - 1. Contractor or Owner shall be entitled to an adjustment in the unit price with respect to an item of Unit Price Work if:
    - a. the quantity of the item of Unit Price Work performed by Contractor differs materially and significantly from the estimated quantity of such item indicated in the Agreement; and
    - b. Contractor's unit costs to perform the item of Unit Price Work have changed materially and significantly as a result of the quantity change.
  - 2. The adjustment in unit price will account for and be coordinated with any related changes in quantities of other items of Work, and in Contractor's costs to perform such other Work, such that the resulting overall change in Contract Price is equitable to Owner and Contractor.
  - 3. Adjusted unit prices will apply to all units of that item.

**ARTICLE 14 - TESTS AND INSPECTIONS; CORRECTION, REMOVAL, OR ACCEPTANCE OF DEFECTIVE WORK**

14.01 *Access to Work*

- A. Owner, Engineer, their consultants and other representatives and personnel of Owner, independent testing laboratories, and authorities having jurisdiction have access to the Site and the Work at reasonable times for their observation, inspection, and testing. Contractor shall provide them proper and safe conditions for such access and advise them of Contractor's safety procedures and programs so that they may comply with such procedures and programs as applicable.

14.02 *Tests, Inspections, and Approvals*

- A. Contractor shall give Engineer timely notice of readiness of the Work (or specific parts thereof) for all required inspections and tests, and shall cooperate with inspection and testing personnel to facilitate required inspections and tests.
- B. Owner shall retain and pay for the services of an independent inspector, testing laboratory, or other qualified individual or entity to perform all inspections and tests expressly required by the Contract Documents to be furnished and paid for by Owner, except that costs incurred in connection with tests or inspections of covered Work will be governed by the provisions of Paragraph 14.05.
- C. If Laws or Regulations of any public body having jurisdiction require any Work (or part thereof) specifically to be inspected, tested, or approved by an employee or other representative of such public body, Contractor shall assume full responsibility for arranging and obtaining such inspections, tests, or approvals, pay all costs in connection therewith, and furnish Engineer the required certificates of inspection or approval.
- D. Contractor shall be responsible for arranging, obtaining, and paying for all inspections and tests required:
  - 1. by the Contract Documents, unless the Contract Documents expressly allocate responsibility for a specific inspection or test to Owner;
  - 2. to attain Owner's and Engineer's acceptance of materials or equipment to be incorporated in the Work;
  - 3. by manufacturers of equipment furnished under the Contract Documents;
  - 4. for testing, adjusting, and balancing of mechanical, electrical, and other equipment to be incorporated into the Work; and
  - 5. for acceptance of materials, mix designs, or equipment submitted for approval prior to Contractor's purchase thereof for incorporation in the Work.
- E. If the Contract Documents require the Work (or part thereof) to be approved by Owner, Engineer, or another designated individual or entity, then Contractor shall

assume full responsibility for arranging and obtaining such approvals.

- F. If any Work (or the work of others) that is to be inspected, tested, or approved is covered by Contractor without written concurrence of Engineer, Contractor shall, if requested by Engineer, uncover such Work for observation. Such uncovering will be at Contractor's expense unless Contractor had given Engineer timely notice of Contractor's intention to cover the same and Engineer had not acted with reasonable promptness in response to such notice.

#### 14.03 *Defective Work*

- A. *Contractor's Obligation:* It is Contractor's obligation to assure that the Work is not defective.
- B. *Engineer's Authority:* Engineer has the authority to determine whether Work is defective, and to reject defective Work.
- C. *Notice of Defects:* Prompt written notice of all defective Work of which Owner or Engineer has actual knowledge will be given to Contractor.
- D. *Correction, or Removal and Replacement:* Promptly after receipt of written notice of defective Work, Contractor shall correct all such defective Work, whether or not fabricated, installed, or completed, or, if Engineer has rejected the defective Work, remove it from the Project and replace it with Work that is not defective.
- E. *Preservation of Warranties:* When correcting defective Work, Contractor shall take no action that would void or otherwise impair Owner's special warranty and guarantee, if any, on said Work.
- F. *Costs and Damages:* In addition to its correction, removal, and replacement obligations with respect to defective Work, Contractor shall pay all claims, costs, losses, and damages arising out of or relating to defective Work, including but not limited to the cost of the inspection, testing, correction, removal, replacement, or reconstruction of such defective Work, fines levied against Owner by governmental authorities because the Work is defective, and the costs of repair or replacement of work of others resulting from defective Work. Prior to final payment, if Owner and Contractor are unable to agree as to the measure of such claims, costs, losses, and damages resulting from defective Work, then Owner may impose a reasonable set-off against payments due under Article 15.

#### 14.04 *Acceptance of Defective Work*

- A. If, instead of requiring correction or removal and replacement of defective Work, Owner prefers to accept it, Owner may do so (subject, if such acceptance occurs prior to final payment, to Engineer's confirmation that such acceptance is in general accord with the design intent and applicable engineering principles, and will not endanger public safety). Contractor shall pay all claims, costs, losses, and damages attributable to Owner's evaluation of and determination to accept such defective Work (such costs to be approved by Engineer as to reasonableness), and for the diminished value of the Work to the extent not otherwise paid by Contractor. If any such acceptance occurs prior to final payment, the necessary revisions in the

Contract Documents with respect to the Work will be incorporated in a Change Order. If the parties are unable to agree as to the decrease in the Contract Price, reflecting the diminished value of Work so accepted, then Owner may impose a reasonable set-off against payments due under Article 15. If the acceptance of defective Work occurs after final payment, Contractor shall pay an appropriate amount to Owner.

#### 14.05 *Uncovering Work*

- A. Engineer has the authority to require additional inspection or testing of the Work, whether or not the Work is fabricated, installed, or completed.
- B. If any Work is covered contrary to the written request of Engineer, then Contractor shall, if requested by Engineer, uncover such Work for Engineer's observation, and then replace the covering, all at Contractor's expense.
- C. If Engineer considers it necessary or advisable that covered Work be observed by Engineer or inspected or tested by others, then Contractor, at Engineer's request, shall uncover, expose, or otherwise make available for observation, inspection, or testing as Engineer may require, that portion of the Work in question, and provide all necessary labor, material, and equipment.
  - 1. If it is found that the uncovered Work is defective, Contractor shall be responsible for all claims, costs, losses, and damages arising out of or relating to such uncovering, exposure, observation, inspection, and testing, and of satisfactory replacement or reconstruction (including but not limited to all costs of repair or replacement of work of others); and pending Contractor's full discharge of this responsibility the Owner shall be entitled to impose a reasonable set-off against payments due under Article 15.
  - 2. If the uncovered Work is not found to be defective, Contractor shall be allowed an increase in the Contract Price or an extension of the Contract Times, directly attributable to such uncovering, exposure, observation, inspection, testing, replacement, and reconstruction. If the parties are unable to agree as to the amount or extent thereof, then Contractor may submit a Change Proposal within 30 days of the determination that the Work is not defective.

#### 14.06 *Owner May Stop the Work*

- A. If the Work is defective, or Contractor fails to supply sufficient skilled workers or suitable materials or equipment, or fails to perform the Work in such a way that the completed Work will conform to the Contract Documents, then Owner may order Contractor to stop the Work, or any portion thereof, until the cause for such order has been eliminated; however, this right of Owner to stop the Work will not give rise to any duty on the part of Owner to exercise this right for the benefit of Contractor, any Subcontractor, any Supplier, any other individual or entity, or any surety for, or employee or agent of any of them.

#### 14.07 *Owner May Correct Defective Work*

- A. If Contractor fails within a reasonable time after written notice from Engineer to correct defective Work, or to remove and replace defective Work as required by Engineer, then Owner may, after 7 days' written notice to Contractor, correct or remedy any such deficiency.
- B. In exercising the rights and remedies under this Paragraph 14.07, Owner shall proceed expeditiously. In connection with such corrective or remedial action, Owner may exclude Contractor from all or part of the Site, take possession of all or part of the Work and suspend Contractor's services related thereto, and incorporate in the Work all materials and equipment stored at the Site or for which Owner has paid Contractor but which are stored elsewhere. Contractor shall allow Owner, Owner's representatives, agents and employees, Owner's other contractors, and Engineer and Engineer's consultants access to the Site to enable Owner to exercise the rights and remedies under this paragraph.
- C. All claims, costs, losses, and damages incurred or sustained by Owner in exercising the rights and remedies under this Paragraph 14.07 will be charged against Contractor as set-offs against payments due under Article 15. Such claims, costs, losses and damages will include but not be limited to all costs of repair, or replacement of work of others destroyed or damaged by correction, removal, or replacement of Contractor's defective Work.
- D. Contractor shall not be allowed an extension of the Contract Times because of any delay in the performance of the Work attributable to the exercise by Owner of Owner's rights and remedies under this Paragraph 14.07.

**ARTICLE 15 - PAYMENTS TO CONTRACTOR; SET-OFFS; COMPLETION; CORRECTION PERIOD**

15.01 *Progress Payments*

- A. *Basis for Progress Payments:* The Schedule of Values established as provided in Article 2 will serve as the basis for progress payments and will be incorporated into a form of Application for Payment acceptable to Engineer. Progress payments for Unit Price Work will be based on the number of units completed during the pay period, as determined under the provisions of Paragraph 13.03. Progress payments for cost-based Work will be based on Cost of the Work completed by Contractor during the pay period.
- B. *Applications for Payments*
  - 1. At least 20 days before the date established in the Agreement for each progress payment (but not more often than once a month), Contractor shall submit to Engineer for review an Application for Payment filled out and signed by Contractor covering the Work completed as of the date of the Application and accompanied by such supporting documentation as is required by the Contract Documents.
  - 2. If payment is requested on the basis of materials and equipment not incorporated in the Work but delivered and suitably stored at the Site or at another location

agreed to in writing, the Application for Payment must also be accompanied by: (a) a bill of sale, invoice, copies of subcontract or purchase order payments, or other documentation establishing full payment by Contractor for the materials and equipment; (b) at Owner's request, documentation warranting that Owner has received the materials and equipment free and clear of all Liens; and (c) evidence that the materials and equipment are covered by appropriate property insurance, a warehouse bond, or other arrangements to protect Owner's interest therein, all of which must be satisfactory to Owner.

3. Beginning with the second Application for Payment, each Application must include an affidavit of Contractor stating that all previous progress payments received by Contractor have been applied to discharge Contractor's legitimate obligations associated with prior Applications for Payment.
4. The amount of retainage with respect to progress payments will be as stipulated in the Agreement.

### C. *Review of Applications*

1. Engineer will, within 10 days after receipt of each Application for Payment, including each resubmittal, either indicate in writing a recommendation of payment and present the Application to Owner, or return the Application to Contractor indicating in writing Engineer's reasons for refusing to recommend payment. In the latter case, Contractor may make the necessary corrections and resubmit the Application.
2. Engineer's recommendation of any payment requested in an Application for Payment will constitute a representation by Engineer to Owner, based on Engineer's observations of the executed Work as an experienced and qualified design professional, and on Engineer's review of the Application for Payment and the accompanying data and schedules, that to the best of Engineer's knowledge, information and belief:
  - a. the Work has progressed to the point indicated;
  - b. the quality of the Work is generally in accordance with the Contract Documents (subject to an evaluation of the Work as a functioning whole prior to or upon Substantial Completion, the results of any subsequent tests called for in the Contract Documents, a final determination of quantities and classifications for Unit Price Work under Paragraph 13.03, and any other qualifications stated in the recommendation); and
  - c. the conditions precedent to Contractor's being entitled to such payment appear to have been fulfilled in so far as it is Engineer's responsibility to observe the Work.
3. By recommending any such payment Engineer will not thereby be deemed to have represented that:
  - a. inspections made to check the quality or the quantity of the Work as it has been performed have been exhaustive, extended to every aspect of the Work

- in progress, or involved detailed inspections of the Work beyond the responsibilities specifically assigned to Engineer in the Contract; or
- b. there may not be other matters or issues between the parties that might entitle Contractor to be paid additionally by Owner or entitle Owner to withhold payment to Contractor.
4. Neither Engineer's review of Contractor's Work for the purposes of recommending payments nor Engineer's recommendation of any payment, including final payment, will impose responsibility on Engineer:
    - a. to supervise, direct, or control the Work;
    - b. for the means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto;
    - c. for Contractor's failure to comply with Laws and Regulations applicable to Contractor's performance of the Work;
    - d. to make any examination to ascertain how or for what purposes Contractor has used the money paid by Owner; or
    - e. to determine that title to any of the Work, materials, or equipment has passed to Owner free and clear of any Liens.
  5. Engineer may refuse to recommend the whole or any part of any payment if, in Engineer's opinion, it would be incorrect to make the representations to Owner stated in Paragraph 15.01.C.2.
  6. Engineer will recommend reductions in payment (set-offs) necessary in Engineer's opinion to protect Owner from loss because:
    - a. the Work is defective, requiring correction or replacement;
    - b. the Contract Price has been reduced by Change Orders;
    - c. Owner has been required to correct defective Work in accordance with Paragraph 14.07, or has accepted defective Work pursuant to Paragraph 14.04;
    - d. Owner has been required to remove or remediate a Hazardous Environmental Condition for which Contractor is responsible; or
    - e. Engineer has actual knowledge of the occurrence of any of the events that would constitute a default by Contractor and therefore justify termination for cause under the Contract Documents.

*D. Payment Becomes Due*

1. Ten days after presentation of the Application for Payment to Owner with Engineer's recommendation, the amount recommended (subject to any Owner

set-offs) will become due, and when due will be paid by Owner to Contractor.

E. *Reductions in Payment by Owner*

1. In addition to any reductions in payment (set-offs) recommended by Engineer, Owner is entitled to impose a set-off against payment based on any of the following:
  - a. Claims have been made against Owner based on Contractor's conduct in the performance or furnishing of the Work, or Owner has incurred costs, losses, or damages resulting from Contractor's conduct in the performance or furnishing of the Work, including but not limited to claims, costs, losses, or damages from workplace injuries, adjacent property damage, non-compliance with Laws and Regulations, and patent infringement;
  - b. Contractor has failed to take reasonable and customary measures to avoid damage, delay, disruption, and interference with other work at or adjacent to the Site;
  - c. Contractor has failed to provide and maintain required bonds or insurance;
  - d. Owner has been required to remove or remediate a Hazardous Environmental Condition for which Contractor is responsible;
  - e. Owner has incurred extra charges or engineering costs related to submittal reviews, evaluations of proposed substitutes, tests and inspections, or return visits to manufacturing or assembly facilities;
  - f. The Work is defective, requiring correction or replacement;
  - g. Owner has been required to correct defective Work in accordance with Paragraph 14.07, or has accepted defective Work pursuant to Paragraph 14.04;
  - h. The Contract Price has been reduced by Change Orders;
  - i. An event has occurred that would constitute a default by Contractor and therefore justify a termination for cause;
  - j. Liquidated or other damages have accrued as a result of Contractor's failure to achieve Milestones, Substantial Completion, or final completion of the Work;
  - k. Liens have been filed in connection with the Work, except where Contractor has delivered a specific bond satisfactory to Owner to secure the satisfaction and discharge of such Liens; or
  - l. Other items entitle Owner to a set-off against the amount recommended.
2. If Owner imposes any set-off against payment, whether based on its own knowledge or on the written recommendations of Engineer, Owner will give

Contractor immediate written notice (with a copy to Engineer) stating the reasons for such action and the specific amount of the reduction, and promptly pay Contractor any amount remaining after deduction of the amount so withheld. Owner shall promptly pay Contractor the amount so withheld, or any adjustment thereto agreed to by Owner and Contractor, if Contractor remedies the reasons for such action. The reduction imposed will be binding on Contractor unless it duly submits a Change Proposal contesting the reduction.

3. Upon a subsequent determination that Owner's refusal of payment was not justified, the amount wrongfully withheld will be treated as an amount due as determined by Paragraph 15.01.D.1 and subject to interest as provided in the Agreement.

#### 15.02 *Contractor's Warranty of Title*

- A. Contractor warrants and guarantees that title to all Work, materials, and equipment furnished under the Contract will pass to Owner free and clear of (1) all Liens and other title defects, and (2) all patent, licensing, copyright, or royalty obligations, no later than 7 days after the time of payment by Owner.

#### 15.03 *Substantial Completion*

- A. When Contractor considers the entire Work ready for its intended use Contractor shall notify Owner and Engineer in writing that the entire Work is substantially complete and request that Engineer issue a certificate of Substantial Completion. Contractor shall at the same time submit to Owner and Engineer an initial draft of punch list items to be completed or corrected before final payment.
- B. Promptly after Contractor's notification, Owner, Contractor, and Engineer shall make an inspection of the Work to determine the status of completion. If Engineer does not consider the Work substantially complete, Engineer will notify Contractor in writing giving the reasons therefor.
- C. If Engineer considers the Work substantially complete, Engineer will deliver to Owner a preliminary certificate of Substantial Completion which will fix the date of Substantial Completion. Engineer shall attach to the certificate a punch list of items to be completed or corrected before final payment. Owner shall have 7 days after receipt of the preliminary certificate during which to make written objection to Engineer as to any provisions of the certificate or attached punch list. If, after considering the objections to the provisions of the preliminary certificate, Engineer concludes that the Work is not substantially complete, Engineer will, within 14 days after submission of the preliminary certificate to Owner, notify Contractor in writing that the Work is not substantially complete, stating the reasons therefor. If Owner does not object to the provisions of the certificate, or if despite consideration of Owner's objections Engineer concludes that the Work is substantially complete, then Engineer will, within said 14 days, execute and deliver to Owner and Contractor a final certificate of Substantial Completion (with a revised punch list of items to be completed or corrected) reflecting such changes from the preliminary certificate as Engineer believes justified after consideration of any objections from Owner.

- D. At the time of receipt of the preliminary certificate of Substantial Completion, Owner and Contractor will confer regarding Owner's use or occupancy of the Work following Substantial Completion, review the builder's risk insurance policy with respect to the end of the builder's risk coverage, and confirm the transition to coverage of the Work under a permanent property insurance policy held by Owner. Unless Owner and Contractor agree otherwise in writing, Owner shall bear responsibility for security, operation, protection of the Work, property insurance, maintenance, heat, and utilities upon Owner's use or occupancy of the Work.
- E. After Substantial Completion the Contractor shall promptly begin work on the punch list of items to be completed or corrected prior to final payment. In appropriate cases Contractor may submit monthly Applications for Payment for completed punch list items, following the progress payment procedures set forth above.
- F. Owner shall have the right to exclude Contractor from the Site after the date of Substantial Completion subject to allowing Contractor reasonable access to remove its property and complete or correct items on the punch list.

#### 15.04 *Partial Use or Occupancy*

- A. Prior to Substantial Completion of all the Work, Owner may use or occupy any substantially completed part of the Work which has specifically been identified in the Contract Documents, or which Owner, Engineer, and Contractor agree constitutes a separately functioning and usable part of the Work that can be used by Owner for its intended purpose without significant interference with Contractor's performance of the remainder of the Work, subject to the following conditions:
  1. At any time, Owner may request in writing that Contractor permit Owner to use or occupy any such part of the Work that Owner believes to be substantially complete. If and when Contractor agrees that such part of the Work is substantially complete, Contractor, Owner, and Engineer will follow the procedures of Paragraph 15.03.A through 15.03.E for that part of the Work.
  2. At any time, Contractor may notify Owner and Engineer in writing that Contractor considers any such part of the Work substantially complete and request Engineer to issue a certificate of Substantial Completion for that part of the Work.
  3. Within a reasonable time after either such request, Owner, Contractor, and Engineer shall make an inspection of that part of the Work to determine its status of completion. If Engineer does not consider that part of the Work to be substantially complete, Engineer will notify Owner and Contractor in writing giving the reasons therefor. If Engineer considers that part of the Work to be substantially complete, the provisions of Paragraph 15.03 will apply with respect to certification of Substantial Completion of that part of the Work and the division of responsibility in respect thereof and access thereto.
  4. No use or occupancy or separate operation of part of the Work may occur prior to compliance with the requirements of Paragraph 6.04 regarding builder's risk or other property insurance.

15.05 *Final Inspection*

- A. Upon written notice from Contractor that the entire Work or an agreed portion thereof is complete, Engineer will promptly make a final inspection with Owner and Contractor and will notify Contractor in writing of all particulars in which this inspection reveals that the Work, or agreed portion thereof, is incomplete or defective. Contractor shall immediately take such measures as are necessary to complete such Work or remedy such deficiencies.

15.06 *Final Payment*A. *Application for Payment*

1. After Contractor has, in the opinion of Engineer, satisfactorily completed all corrections identified during the final inspection and has delivered, in accordance with the Contract Documents, all maintenance and operating instructions, schedules, guarantees, bonds, certificates or other evidence of insurance, certificates of inspection, annotated record documents (as provided in Paragraph 7.12), and other documents, Contractor may make application for final payment.
2. The final Application for Payment must be accompanied (except as previously delivered) by:
  - a. all documentation called for in the Contract Documents;
  - b. consent of the surety, if any, to final payment;
  - c. satisfactory evidence that all title issues have been resolved such that title to all Work, materials, and equipment has passed to Owner free and clear of any Liens or other title defects, or will so pass upon final payment.
  - d. a list of all duly pending Change Proposals and Claims; and
  - e. complete and legally effective releases or waivers (satisfactory to Owner) of all Lien rights arising out of the Work, and of Liens filed in connection with the Work.
3. In lieu of the releases or waivers of Liens specified in Paragraph 15.06.A.2 and as approved by Owner, Contractor may furnish receipts or releases in full and an affidavit of Contractor that: (a) the releases and receipts include all labor, services, material, and equipment for which a Lien could be filed; and (b) all payrolls, material and equipment bills, and other indebtedness connected with the Work for which Owner might in any way be responsible, or which might in any way result in liens or other burdens on Owner's property, have been paid or otherwise satisfied. If any Subcontractor or Supplier fails to furnish such a release or receipt in full, Contractor may furnish a bond or other collateral satisfactory to Owner to indemnify Owner against any Lien, or Owner at its option may issue joint checks payable to Contractor and specified Subcontractors and Suppliers.

- B. *Engineer's Review of Final Application and Recommendation of Payment:* If, on the basis of Engineer's observation of the Work during construction and final inspection, and Engineer's review of the final Application for Payment and accompanying documentation as required by the Contract Documents, Engineer is satisfied that the Work has been completed and Contractor's other obligations under the Contract have been fulfilled, Engineer will, within 10 days after receipt of the final Application for Payment, indicate in writing Engineer's recommendation of final payment and present the final Application for Payment to Owner for payment. Such recommendation will account for any set-offs against payment that are necessary in Engineer's opinion to protect Owner from loss for the reasons stated above with respect to progress payments. Otherwise, Engineer will return the Application for Payment to Contractor, indicating in writing the reasons for refusing to recommend final payment, in which case Contractor shall make the necessary corrections and resubmit the Application for Payment.
- C. *Notice of Acceptability:* In support of its recommendation of payment of the final Application for Payment, Engineer will also give written notice to Owner and Contractor that the Work is acceptable, subject to stated limitations in the notice and to the provisions of Paragraph 15.07.
- D. *Completion of Work:* The Work is complete (subject to surviving obligations) when it is ready for final payment as established by the Engineer's written recommendation of final payment and issuance of notice of the acceptability of the Work.
- E. *Final Payment Becomes Due:* Upon receipt from Engineer of the final Application for Payment and accompanying documentation, Owner shall set off against the amount recommended by Engineer for final payment any further sum to which Owner is entitled, including but not limited to set-offs for liquidated damages and set-offs allowed under the provisions of this Contract with respect to progress payments. Owner shall pay the resulting balance due to Contractor within 30 days of Owner's receipt of the final Application for Payment from Engineer.

#### 15.07 *Waiver of Claims*

- A. By making final payment, Owner waives its claim or right to liquidated damages or other damages for late completion by Contractor, except as set forth in an outstanding Claim, appeal under the provisions of Article 17, set-off, or express reservation of rights by Owner. Owner reserves all other claims or rights after final payment.
- B. The acceptance of final payment by Contractor will constitute a waiver by Contractor of all claims and rights against Owner other than those pending matters that have been duly submitted as a Claim, or appealed under the provisions of Article 17.

#### 15.08 *Correction Period*

- A. If within one year after the date of Substantial Completion (or such longer period of time as may be prescribed by the Supplementary Conditions or the terms of any applicable special guarantee required by the Contract Documents), Owner gives

Contractor written notice that any Work has been found to be defective, or that Contractor's repair of any damages to the Site or adjacent areas has been found to be defective, then after receipt of such notice of defect Contractor shall promptly, without cost to Owner and in accordance with Owner's written instructions:

1. correct the defective repairs to the Site or such adjacent areas;
  2. correct such defective Work;
  3. remove the defective Work from the Project and replace it with Work that is not defective, if the defective Work has been rejected by Owner, and
  4. satisfactorily correct or repair or remove and replace any damage to other Work, to the work of others, or to other land or areas resulting from the corrective measures.
- B. Owner shall give any such notice of defect within 60 days of the discovery that such Work or repairs is defective. If such notice is given within such 60 days but after the end of the correction period, the notice will be deemed a notice of defective Work under Paragraph 7.17.B.
- C. If, after receipt of a notice of defect within 60 days and within the correction period, Contractor does not promptly comply with the terms of Owner's written instructions, or in an emergency where delay would cause serious risk of loss or damage, Owner may have the defective Work corrected or repaired or may have the rejected Work removed and replaced. Contractor shall pay all costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such correction or repair or such removal and replacement (including but not limited to all costs of repair or replacement of work of others). Contractor's failure to pay such costs, losses, and damages within 10 days of invoice from Owner will be deemed the start of an event giving rise to a Claim under Paragraph 12.01.B, such that any related Claim must be brought within 30 days of the failure to pay.
- D. In special circumstances where a particular item of equipment is placed in continuous service before Substantial Completion of all the Work, the correction period for that item may start to run from an earlier date if so provided in the Specifications.
- E. Where defective Work (and damage to other Work resulting therefrom) has been corrected or removed and replaced under this paragraph, the correction period hereunder with respect to such Work will be extended for an additional period of one year after such correction or removal and replacement has been satisfactorily completed.
- F. Contractor's obligations under this paragraph are in addition to all other obligations and warranties. The provisions of this paragraph are not to be construed as a substitute for, or a waiver of, the provisions of any applicable statute of limitation or repose.

## ARTICLE 16 - SUSPENSION OF WORK AND TERMINATION

### 16.01 *Owner May Suspend Work*

- A. At any time and without cause, Owner may suspend the Work or any portion thereof for a period of not more than 90 consecutive days by written notice to Contractor and Engineer. Such notice will fix the date on which Work will be resumed. Contractor shall resume the Work on the date so fixed. Contractor shall be entitled to an adjustment in the Contract Price or an extension of the Contract Times directly attributable to any such suspension. Any Change Proposal seeking such adjustments must be submitted no later than 30 days after the date fixed for resumption of Work.

### 16.02 *Owner May Terminate for Cause*

- A. The occurrence of any one or more of the following events will constitute a default by Contractor and justify termination for cause:
  - 1. Contractor's persistent failure to perform the Work in accordance with the Contract Documents (including, but not limited to, failure to supply sufficient skilled workers or suitable materials or equipment, or failure to adhere to the Progress Schedule);
  - 2. Failure of Contractor to perform or otherwise to comply with a material term of the Contract Documents;
  - 3. Contractor's disregard of Laws or Regulations of any public body having jurisdiction; or
  - 4. Contractor's repeated disregard of the authority of Owner or Engineer.
- B. If one or more of the events identified in Paragraph 16.02.A occurs, then after giving Contractor (and any surety) 10 days' written notice that Owner is considering a declaration that Contractor is in default and termination of the Contract, Owner may proceed to:
  - 1. declare Contractor to be in default, and give Contractor (and any surety) written notice that the Contract is terminated; and
  - 2. enforce the rights available to Owner under any applicable performance bond.
- C. Subject to the terms and operation of any applicable performance bond, if Owner has terminated the Contract for cause, Owner may exclude Contractor from the Site, take possession of the Work, incorporate in the Work all materials and equipment stored at the Site or for which Owner has paid Contractor but which are stored elsewhere, and complete the Work as Owner may deem expedient.
- D. Owner may not proceed with termination of the Contract under Paragraph 16.02.B if Contractor within 7 days of receipt of notice of intent to terminate begins to correct its failure to perform and proceeds diligently to cure such failure.

- E. If Owner proceeds as provided in Paragraph 16.02.B, Contractor shall not be entitled to receive any further payment until the Work is completed. If the unpaid balance of the Contract Price exceeds the cost to complete the Work, including all related claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals) sustained by Owner, such excess will be paid to Contractor. If the cost to complete the Work including such related claims, costs, losses, and damages exceeds such unpaid balance, Contractor shall pay the difference to Owner. Such claims, costs, losses, and damages incurred by Owner will be reviewed by Engineer as to their reasonableness and, when so approved by Engineer, incorporated in a Change Order. When exercising any rights or remedies under this paragraph, Owner shall not be required to obtain the lowest price for the Work performed.
- F. Where Contractor's services have been so terminated by Owner, the termination will not affect any rights or remedies of Owner against Contractor then existing or which may thereafter accrue, or any rights or remedies of Owner against Contractor or any surety under any payment bond or performance bond. Any retention or payment of money due Contractor by Owner will not release Contractor from liability.
- G. If and to the extent that Contractor has provided a performance bond under the provisions of Paragraph 6.01.A, the provisions of that bond will govern over any inconsistent provisions of Paragraphs 16.02.B and 16.02.D.

#### 16.03 *Owner May Terminate for Convenience*

- A. Upon 7 days' written notice to Contractor and Engineer, Owner may, without cause and without prejudice to any other right or remedy of Owner, terminate the Contract. In such case, Contractor shall be paid for (without duplication of any items):
  1. completed and acceptable Work executed in accordance with the Contract Documents prior to the effective date of termination, including fair and reasonable sums for overhead and profit on such Work;
  2. expenses sustained prior to the effective date of termination in performing services and furnishing labor, materials, or equipment as required by the Contract Documents in connection with uncompleted Work, plus fair and reasonable sums for overhead and profit on such expenses; and
  3. other reasonable expenses directly attributable to termination, including costs incurred to prepare a termination for convenience cost proposal.
- B. Contractor shall not be paid for any loss of anticipated profits or revenue, post-termination overhead costs, or other economic loss arising out of or resulting from such termination.

#### 16.04 *Contractor May Stop Work or Terminate*

- A. If, through no act or fault of Contractor, (1) the Work is suspended for more than 90 consecutive days by Owner or under an order of court or other public authority, or (2) Engineer fails to act on any Application for Payment within 30 days after it is

- submitted, or (3) Owner fails for 30 days to pay Contractor any sum finally determined to be due, then Contractor may, upon 7 days' written notice to Owner and Engineer, and provided Owner or Engineer do not remedy such suspension or failure within that time, terminate the contract and recover from Owner payment on the same terms as provided in Paragraph 16.03.
- B. In lieu of terminating the Contract and without prejudice to any other right or remedy, if Engineer has failed to act on an Application for Payment within 30 days after it is submitted, or Owner has failed for 30 days to pay Contractor any sum finally determined to be due, Contractor may, 7 days after written notice to Owner and Engineer, stop the Work until payment is made of all such amounts due Contractor, including interest thereon. The provisions of this paragraph are not intended to preclude Contractor from submitting a Change Proposal for an adjustment in Contract Price or Contract Times or otherwise for expenses or damage directly attributable to Contractor's stopping the Work as permitted by this paragraph.

## ARTICLE 17 - FINAL RESOLUTION OF DISPUTES

### 17.01 *Methods and Procedures*

- A. *Disputes Subject to Final Resolution:* The following disputed matters are subject to final resolution under the provisions of this article:
1. A timely appeal of an approval in part and denial in part of a Claim, or of a denial in full, pursuant to Article 12; and
  2. Disputes between Owner and Contractor concerning the Work, or obligations under the Contract Documents, that arise after final payment has been made.
- B. *Final Resolution of Disputes:* For any dispute subject to resolution under this article, Owner or Contractor may:
1. elect in writing to invoke the dispute resolution process provided for in the Supplementary Conditions;
  2. agree with the other party to submit the dispute to another dispute resolution process; or
  3. if no dispute resolution process is provided for in the Supplementary Conditions or mutually agreed to, give written notice to the other party of the intent to submit the dispute to a court of competent jurisdiction.

## ARTICLE 18 - MISCELLANEOUS

### 18.01 *Giving Notice*

- A. Whenever any provision of the Contract requires the giving of written notice to Owner, Engineer, or Contractor, it will be deemed to have been validly given only if delivered:

1. in person, by a commercial courier service or otherwise, to the recipient's place of business;
2. by registered or certified mail, postage prepaid, to the recipient's place of business; or
3. by e-mail to the recipient, with the words "Formal Notice" or similar in the e-mail's subject line.

18.02 *Computation of Times*

- A. When any period of time is referred to in the Contract by days, it will be computed to exclude the first and include the last day of such period. If the last day of any such period falls on a Saturday or Sunday or on a day made a legal holiday by the law of the applicable jurisdiction, such day will be omitted from the computation.

18.03 *Cumulative Remedies*

- A. The duties and obligations imposed by these General Conditions and the rights and remedies available hereunder to the parties hereto are in addition to, and are not to be construed in any way as a limitation of, any rights and remedies available to any or all of them which are otherwise imposed or available by Laws or Regulations, by special warranty or guarantee, or by other provisions of the Contract. The provisions of this paragraph will be as effective as if repeated specifically in the Contract Documents in connection with each particular duty, obligation, right, and remedy to which they apply.

18.04 *Limitation of Damages*

- A. With respect to any and all Change Proposals, Claims, disputes subject to final resolution, and other matters at issue, neither Owner nor Engineer, nor any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors, shall be liable to Contractor for any claims, costs, losses, or damages sustained by Contractor on or in connection with any other project or anticipated project.

18.05 *No Waiver*

- A. A party's non-enforcement of any provision will not constitute a waiver of that provision, nor will it affect the enforceability of that provision or of the remainder of this Contract.

18.06 *Survival of Obligations*

- A. All representations, indemnifications, warranties, and guarantees made in, required by, or given in accordance with the Contract, as well as all continuing obligations indicated in the Contract, will survive final payment, completion, and acceptance of the Work or termination of the Contract or of the services of Contractor.

18.07 *Controlling Law*

- A. This Contract is to be governed by the law of the state in which the Project is located.

18.08 *Assignment of Contract*

- A. Unless expressly agreed to elsewhere in the Contract, no assignment by a party to this Contract of any rights under or interests in the Contract will be binding on the other party without the written consent of the party sought to be bound; and, specifically but without limitation, money that may become due and money that is due may not be assigned without such consent (except to the extent that the effect of this restriction may be limited by law), and unless specifically stated to the contrary in any written consent to an assignment, no assignment will release or discharge the assignor from any duty or responsibility under the Contract.

18.09 *Successors and Assigns*

- A. Owner and Contractor each binds itself, its successors, assigns, and legal representatives to the other party hereto, its successors, assigns, and legal representatives in respect to all covenants, agreements, and obligations contained in the Contract Documents.

18.10 *Headings*

- A. Article and paragraph headings are inserted for convenience only and do not constitute parts of these General Conditions.

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## EJCDC C-800 SUPPLEMENTARY CONDITIONS

These Supplementary Conditions amend or supplement EJCDC® C-700, Standard General Conditions of the Construction Contract (2018). The General Conditions remain in full force and effect except as amended.

The terms used in these Supplementary Conditions have the meanings stated in the General Conditions. Additional terms used in these Supplementary Conditions have the meanings stated below, which are applicable to both the singular and plural thereof.

The address system used in these Supplementary Conditions is the same as the address system used in the General Conditions, with the prefix "SC" added - for example, "Paragraph SC-4.05."

### ARTICLE 1 - DEFINITIONS AND TERMINOLOGY

No suggested Supplementary Conditions in this Article.

### ARTICLE 2 - PRELIMINARY MATTERS

#### *2.01 Delivery of Bonds and Evidence of Insurance*

SC-2.01 Delete Paragraphs 2.01.B. and C. in their entirety and insert the following in their place:

B. *Evidence of Contractor's Insurance:* When Contractor delivers the signed counterparts of the Agreement to Owner, Contractor shall also deliver to Owner copies of the policies (including all endorsements, and identification of applicable self-insured retentions and deductibles) of insurance required to be provided by Contractor in this Contract. Contractor may block out (redact) any confidential premium or pricing information contained in any policy or endorsement furnished under this provision.

C. *Evidence of Owner's Insurance:* After receipt from Contractor of the signed counterparts of the Agreement and all required bonds and insurance documentation, Owner shall promptly deliver to Contractor copies of the policies of insurance to be provided by Owner in this Contract (if any). Owner may block out (redact) any confidential premium or pricing information contained in any policy or endorsement furnished under this provision.

#### *2.02 Copies of Documents*

SC-2.02 Delete Paragraph 2.02.A in its entirety and insert the following new paragraph in its place:

A. Owner shall furnish to Contractor **2** printed copies of conformed Contract Documents incorporating and integrating all Addenda and any amendments negotiated prior to the Effective Date of the Contract (including one fully signed counterpart of the Agreement), and one copy in electronic portable document format

(PDF). Additional printed copies of the conformed Contract Documents will be furnished upon request at the cost of reproduction.

2.06 *Electronic Transmittals*

SC-2.06 Delete Paragraphs 2.06.B and 2.06.C in their entirety and insert the following in their place:

B. *Electronic Documents Protocol*: The parties shall conform to the following provisions in Paragraphs 2.06.B and 2.06.C, together referred to as the Electronic Documents Protocol (“EDP” or “Protocol”) for exchange of electronic transmittals.

1. Basic Requirements

- a. To the fullest extent practical, the parties agree to and will transmit and accept Electronic Documents in an electronic or digital format using the procedures described in this Protocol. Use of the Electronic Documents and any information contained therein is subject to the requirements of this Protocol and other provisions of the Contract.
- b. The contents of the information in any Electronic Document will be the responsibility of the transmitting party.
- c. Electronic Documents as exchanged by this Protocol may be used in the same manner as the printed versions of the same documents that are exchanged using non-electronic format and methods, subject to the same governing requirements, limitations, and restrictions, set forth in the Contract Documents.
- d. Except as otherwise explicitly stated herein, the terms of this Protocol will be incorporated into any other agreement or subcontract between a party and any third party for any portion of the Work on the Project, or any Project-related services, where that third party is, either directly or indirectly, required to exchange Electronic Documents with a party or with Engineer. Nothing herein will modify the requirements of the Contract regarding communications between and among the parties and their subcontractors and consultants.
- e. When transmitting Electronic Documents, the transmitting party makes no representations as to long term compatibility, usability, or readability of the items resulting from the receiving party’s use of software application packages, operating systems, or computer hardware differing from those established in this Protocol.
- f. Nothing herein negates any obligation 1) in the Contract to create, provide, or maintain an original printed record version of Drawings and Specifications, signed and sealed according to applicable Laws and Regulations; 2) to comply with any applicable Law or Regulation governing the signing and sealing of design documents or the signing and electronic transmission of any other documents; or 3) to comply with the notice requirements of Paragraph 18.01 of the General Conditions.

## 2. *System Infrastructure for Electronic Document Exchange*

- a. Each party will provide hardware, operating system(s) software, internet, e-mail, and large file transfer functions (“System Infrastructure”) at its own cost and sufficient for complying with the EDP requirements. With the exception of minimum standards set forth in this EDP, and any explicit system requirements specified by attachment to this EDP, it is the obligation of each party to determine, for itself, its own System Infrastructure.
  - 1) The maximum size of an email attachment for exchange of Electronic Documents under this EDP is 5 MB. Attachments larger than that may be exchanged using large file transfer functions or physical media.
  - 2) Each Party assumes full and complete responsibility for any and all of its own costs, delays, deficiencies, and errors associated with converting, translating, updating, verifying, licensing, or otherwise enabling its System Infrastructure, including operating systems and software, for use with respect to this EDP.
- b. Each party is responsible for its own system operations, security, back-up, archiving, audits, printing resources, and other Information Technology (“IT”) for maintaining operations of its System Infrastructure during the Project, including coordination with the party’s individual(s) or entity responsible for managing its System Infrastructure and capable of addressing routine communications and other IT issues affecting the exchange of Electronic Documents.
- c. Each party will operate and maintain industry-standard, industry-accepted, ISO-standard, commercial-grade security software and systems that are intended to protect the other party from: software viruses and other malicious software like worms, trojans, adware; data breaches; loss of confidentiality; and other threats in the transmission to or storage of information from the other parties, including transmission of Electronic Documents by physical media such as CD/DVD/flash drive/hard drive. To the extent that a party maintains and operates such security software and systems, it shall not be liable to the other party for any breach of system security.
- d. In the case of disputes, conflicts, or modifications to the EDP required to address issues affecting System Infrastructure, the parties shall cooperatively resolve the issues; but, failing resolution, the Owner is authorized to make and require reasonable and necessary changes to the EDP to effectuate its original intent. If the changes cause additional cost or time to Contractor, not reasonably anticipated under the original EDP, Contractor may seek an adjustment in price or time under the appropriate process in the Contract.
- e. Each party is responsible for its own back-up and archive of documents sent and received during the term of the contract under this EDP, unless this EDP establishes a Project document archive, either as part of a mandatory Project website or other communications protocol, upon which the parties may rely

for document archiving during the specified term of operation of such Project document archive. Further, each party remains solely responsible for its own post-Project back-up and archive of Project documents after the term of the Contract, or after termination of the Project document archive, if one is established, for as long as required by the Contract and as each party deems necessary for its own purposes.

- f. If a receiving party receives an obviously corrupted, damaged, or unreadable Electronic Document, the receiving party will advise the sending party of the incomplete transmission.
- g. The parties will bring any non-conforming Electronic Documents into compliance with the EDP. The parties will attempt to complete a successful transmission of the Electronic Document or use an alternative delivery method to complete the communication.
- h. The **Engineer** will operate a Project information management system (also referred to in this EDP as "Project Website") for use of Owner, Engineer and Contractor during the Project for exchange and storage of Project-related communications and information. Except as otherwise provided in this EDP or the General Conditions, use of the Project Website by the parties as described in this Paragraph will be mandatory for exchange of Project documents, communications, submittals, and other Project-related information.

*C. Software Requirements for Electronic Document Exchange; Limitations*

- 3. Each party will acquire the software and software licenses necessary to create and transmit Electronic Documents and to read and to use any Electronic Documents received from the other party (and if relevant from third parties), using the software formats required in this section of the EDP.
  - a. Prior to using any updated version of the software required in this section for sending Electronic Documents to the other party, the originating party will first notify and receive concurrence from the other party for use of the updated version or adjust its transmission to comply with this EDP.
- 4. The parties agree not to intentionally edit, reverse engineer, decrypt, remove security or encryption features, or convert to another format for modification purposes any Electronic Document or information contained therein that was transmitted in a software data format, including Portable Document Format (PDF), intended by sender not to be modified, unless the receiving party obtains the permission of the sending party or is citing or quoting excerpts of the Electronic Document for Project purposes.
- 5. Software and data formats for exchange of Electronic Documents will conform to the requirements set forth in Exhibit A to this EDP, including software versions, if listed.

SC-2.06 Supplement Paragraph 2.06 of the General Conditions by adding the following paragraph:

*D. Requests by Contractor for Electronic Documents in Other Formats*

6. Release of any Electronic Document versions of the Project documents in formats other than those identified in the Electronic Documents Protocol (if any) or elsewhere in the Contract will be at the sole discretion of the Owner.
7. To extent determined by Owner, in its sole discretion, to be prudent and necessary, release of Electronic Documents versions of Project documents and other Project information requested by Contractor ("Request") in formats other than those identified in the Electronic Documents Protocol (if any) or elsewhere in the Contract will be subject to the provisions of the Owner's response to the Request, and to the following conditions to which Contractor agrees:
  - a. The content included in the Electronic Documents created by Engineer and covered by the Request was prepared by Engineer as an internal working document for Engineer's purposes solely, and is being provided to Contractor on an "AS IS" basis without any warranties of any kind, including, but not limited to any implied warranties of fitness for any purpose. As such, Contractor is advised and acknowledges that the content may not be suitable for Contractor's application, or may require substantial modification and independent verification by Contractor. The content may include limited resolution of models, not-to-scale schematic representations and symbols, use of notes to convey design concepts in lieu of accurate graphics, approximations, graphical simplifications, undocumented intermediate revisions, and other devices that may affect subsequent reuse.
  - b. Electronic Documents containing text, graphics, metadata, or other types of data that are provided by Engineer to Contractor under the request are only for convenience of Contractor. Any conclusion or information obtained or derived from such data will be at the Contractor's sole risk and the Contractor waives any claims against Engineer or Owner arising from use of data in Electronic Documents covered by the Request.
  - c. Contractor shall indemnify and hold harmless Owner and Engineer and their subconsultants from all claims, damages, losses, and expenses, including attorneys' fees and defense costs arising out of or resulting from Contractor's use, adaptation, or distribution of any Electronic Documents provided under the Request.
  - d. Contractor agrees not to sell, copy, transfer, forward, give away or otherwise distribute this information (in source or modified file format) to any third party without the direct written authorization of Engineer, unless such distribution is specifically identified in the Request and is limited to Contractor's subcontractors. Contractor warrants that subsequent use by Contractor's subcontractors complies with all terms of the Contract Documents and Owner's response to Request.

8. In the event that Owner elects to provide or directs the Engineer to provide to Contractor any Contractor-requested Electronic Document versions of Project information that is not explicitly identified in the Contract Documents as being available to Contractor, the Owner shall be reimbursed by Contractor on an hourly basis (at **\$95** per hour) for any engineering costs necessary to create or otherwise prepare the data in a manner deemed appropriate by Engineer.

### **ARTICLE 3 - CONTRACT DOCUMENTS: INTENT, REQUIREMENTS, REUSE**

#### *3.02 Reference Standards*

SC 3.02.A Add the following new subparagraph to Paragraph 3.02.A:

3. The ***MDOT 2020 Standard Specifications for Construction***, including all errata is the standard for the basic requirements governing the materials, equipment and methods used in Work identified with an MDOT designation. See section **01-0106.01 - MDOT STANDARD SPECIFICATIONS FOR CONSTRUCTION AND SPECIAL PROVISIONS** for contract specific MDOT special provisions and links to the MDOT 2020 Standard Specifications for Construction and errata.

### **ARTICLE 4 - COMMENCEMENT AND PROGRESS OF THE WORK**

#### *4.05 Delays in Contractor's Progress*

SC-4.05 Amend Paragraph 4.05.C by adding the following subparagraphs:

##### *5. Weather-Related Delays*

- a. If "abnormal weather conditions" as set forth in Paragraph 4.05.C.2 of the General Conditions are the basis for a request for an equitable adjustment in the Contract Times, such request must be documented by data substantiating each of the following: 1) that weather conditions were abnormal for the period of time in which the delay occurred, 2) that such weather conditions could not have been reasonably anticipated, and 3) that such weather conditions had an adverse effect on the Work as scheduled.
- b. The existence of abnormal weather conditions will be determined on a month-by-month basis in accordance with the following:
  - 1) Every workday on which one or more of the following conditions exist will be considered a "bad weather day":
    - (a) Total precipitation (as rain equivalent) occurring between 7:00 p.m. on the preceding day (regardless of whether such preceding day is a workday) through 7:00 p.m. on the workday in question equals or exceeds \_\_\_\_\_ of precipitation (as rain equivalent, based on the snow/rain conversion indicated in the table entitled Foreseeable Bad Weather Days; such table is hereby incorporated in this SC-4.05.C by reference.

- (b) Ambient outdoor air temperature at 11:00 a.m. is equal to or less than the following low temperature threshold: \_\_\_\_\_ degrees Fahrenheit; or, at 3:00 p.m. the ambient outdoor temperature is equal to or greater than the following high temperature threshold: \_\_\_\_\_ degrees Fahrenheit.
- (c) Determination of actual bad weather days during performance of the Work will be based on the weather records measured and recorded by **name of the entity operating the weather station** weather monitoring station at **location of the weather monitoring station**.
- (d) Contractor shall anticipate the number of foreseeable bad weather days per month indicated in the table in Exhibit B - Foreseeable Bad Weather Days.
- (e) In each month, every bad weather day exceeding the number of foreseeable bad weather days established in the table in Exhibit B - Foreseeable Bad Weather Days will be considered as “abnormal weather conditions.” The existence of abnormal weather conditions will not relieve Contractor of the obligation to demonstrate and document that delays caused by abnormal weather are specific to the planned work activities or that such activities thus delayed were on Contractor’s then-current Progress Schedule’s critical path for the Project.

**ARTICLE 5 - SITE, SUBSURFACE AND PHYSICAL CONDITIONS, HAZARDOUS ENVIRONMENTAL CONDITIONS**

*5.03 Subsurface and Physical Conditions*

SC-5.03 Add the following new paragraphs immediately after Paragraph 5.03.D:

E. The following table lists the reports of explorations and tests of subsurface conditions at or adjacent to the Site that contain Technical Data, and specifically identifies the Technical Data in the report upon which Contractor may rely:

Report Title	Date of Report	Technical Data
None Available	N/A	Soil Borings

F. The following table lists the drawings of existing physical conditions at or adjacent to the Site, including those drawings depicting existing surface or subsurface structures at or adjacent to the Site (except Underground Facilities), that contain Technical Data, and specifically identifies the Technical Data upon which Contractor may rely:

Drawings Title	Date of Drawings	Technical Data
None Available	N/A	_____

G. Contractor may examine copies of reports and drawings identified in SC-5.03.E and SC-5.03.F that were not included with the Bidding Documents at **Wolverine Engineers & Surveyors, Inc, 312 North Street, Mason, MI 48854** during regular business hours, or may request copies from Engineer.

## ARTICLE 6 - BONDS AND INSURANCE

### 6.01 Performance, Payment, and Other Bonds

SC-6.01 Add the following paragraphs immediately after Paragraph 6.01.A:

1. *Required Performance Bond Form:* The performance bond that Contractor furnishes will be in the form of EJCDC® C-610, Performance Bond (2010, 2013, or 2018 edition).
2. *Required Payment Bond Form:* The payment bond that Contractor furnishes will be in the form of EJCDC® C-615, Payment Bond (2010, 2013, or 2018 edition).

### 6.03 Contractor's Insurance

SC-6.03 Supplement Paragraph 6.03 with the following provisions after Paragraph 6.03.C:

E. Workers' Compensation and Employer's Liability: Contractor shall purchase and maintain workers' compensation and employer's liability insurance, including, as applicable, United States Longshoreman and Harbor Workers' Compensation Act, Jones Act, stop-gap employer's liability coverage for monopolistic states, and foreign voluntary workers' compensation (from available sources, notwithstanding the jurisdictional requirement of Paragraph 6.02.B of the General Conditions).

<b>Workers' Compensation and Related Policies</b>	<b>Workers' Compensation and Related Policies</b>
<b>Workers' Compensation</b>	
State	Statutory
Applicable Federal (e.g., Longshoreman's)	Statutory
Foreign voluntary workers' compensation (employer's responsibility coverage), if applicable	Statutory
<b>Jones Act (if applicable)</b>	
Bodily injury by accident—each accident	N/A
Bodily injury by disease—aggregate	N/A
<b>Employer's Liability</b>	
Each accident	\$1,000,000
Each employee	\$1,000,000
Policy limit	\$1,000,000
<b>Stop-gap Liability Coverage</b>	

For work performed in monopolistic states, stop-gap liability coverage must be endorsed to either the worker's compensation or commercial general liability policy with a minimum limit of:	N/A
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F. *Commercial General Liability—Claims Covered:* Contractor shall purchase and maintain commercial general liability insurance, covering all operations by or on behalf of Contractor, on an occurrence basis, against claims for:

1. damages because of bodily injury, sickness or disease, or death of any person other than Contractor's employees,
2. damages insured by reasonably available personal injury liability coverage, and
3. damages because of injury to or destruction of tangible property wherever located, including loss of use resulting therefrom.

G. *Commercial General Liability—Form and Content:* Contractor's commercial liability policy must be written on a 1996 (or later) Insurance Services Organization, Inc. (ISO) commercial general liability form (occurrence form) and include the following coverages and endorsements:

4. Products and completed operations coverage.
  - a. Such insurance must be maintained for three years after final payment.
  - b. Contractor shall furnish Owner and each other additional insured (as identified in the Supplementary Conditions or elsewhere in the Contract) evidence of continuation of such insurance at final payment and three years thereafter.
5. Blanket contractual liability coverage, including but not limited to coverage of Contractor's contractual indemnity obligations in Paragraph 7.18.
6. Severability of interests and no insured-versus-insured or cross-liability exclusions.
7. Underground, explosion, and collapse coverage.
8. Personal injury coverage.
9. Additional insured endorsements that include both ongoing operations and products and completed operations coverage through ISO Endorsements CG 20 10 10 01 and CG 20 37 10 01 (together). If Contractor demonstrates to Owner that the specified ISO endorsements are not commercially available, then Contractor may satisfy this requirement by providing equivalent endorsements.
10. For design professional additional insureds, ISO Endorsement CG 20 32 07 04 "Additional Insured—Engineers, Architects or Surveyors Not Engaged by the Named Insured" or its equivalent.

H. *Commercial General Liability—Excluded Content*: The commercial general liability insurance policy, including its coverages, endorsements, and incorporated provisions, must not include any of the following:

11. Any modification of the standard definition of “insured contract” (except to delete the railroad protective liability exclusion if Contractor is required to indemnify a railroad or others with respect to Work within 50 feet of railroad property).
12. Any exclusion for water intrusion or water damage.
13. Any provisions resulting in the erosion of insurance limits by defense costs other than those already incorporated in ISO form CG 00 01.
14. Any exclusion of coverage relating to earth subsidence or movement.
15. Any exclusion for the insured’s vicarious liability, strict liability, or statutory liability (other than worker’s compensation).
16. Any limitation or exclusion based on the nature of Contractor’s work.
17. Any professional liability exclusion broader in effect than the most recent edition of ISO form CG 22 79.

I. *Commercial General Liability—Minimum Policy Limits*

<b>Commercial General Liability</b>	<b>Policy limits of not less than:</b>
General Aggregate	\$2,000,000
Products—Completed Operations Aggregate	\$1,000,000
Personal and Advertising Injury	\$1,000,000
Bodily Injury and Property Damage—Each Occurrence	\$1,000,000

J. *Automobile Liability*: Contractor shall purchase and maintain automobile liability insurance for damages because of bodily injury or death of any person or property damage arising out of the ownership, maintenance, or use of any motor vehicle. The automobile liability policy must be written on an occurrence basis.

<b>Automobile Liability</b>	<b>Policy limits of not less than:</b>
<b>Bodily Injury</b>	
Each Person	\$1,000,000
Each Accident	\$1,000,000
<b>Property Damage</b>	
Each Accident	\$1,000,000
<b>[or]</b>	
<b>Combined Single Limit</b>	
Combined Single Limit (Bodily Injury and Property Damage)	\$2,000,000

**K. Umbrella or Excess Liability:** Contractor shall purchase and maintain umbrella or excess liability insurance written over the underlying employer’s liability, commercial general liability, and automobile liability insurance described in the Paragraphs above. The coverage afforded must be at least as broad as that of each and every one of the underlying policies.

<b>Excess or Umbrella Liability</b>	<b>Policy limits of not less than:</b>
Each Occurrence	\$1,000,000
General Aggregate	\$2,000,000

**L. Using Umbrella or Excess Liability Insurance to Meet CGL and Other Policy Limit Requirements:** Contractor may meet the policy limits specified for employer’s liability, commercial general liability, and automobile liability through the primary policies alone, or through combinations of the primary insurance policy’s policy limits and partial attribution of the policy limits of an umbrella or excess liability policy that is at least as broad in coverage as that of the underlying policy, as specified herein. If such umbrella or excess liability policy was required under this Contract, at a specified minimum policy limit, such umbrella or excess policy must retain a minimum limit of \$[specify amount] after accounting for partial attribution of its limits to underlying policies, as allowed above.

**M. Contractor’s Pollution Liability Insurance:** Contractor shall purchase and maintain a policy covering third-party injury and property damage, including cleanup costs, as a result of pollution conditions arising from Contractor’s operations and completed operations. This insurance must be maintained for no less than three years after final completion.

<b>Contractor’s Pollution Liability</b>	<b>Policy limits of not less than:</b>
Each Occurrence/Claim	\$1,000,000
General Aggregate	\$1,000,000

**6.04 Builder’s Risk and Other Property Insurance**

SC-6.04 Supplement Paragraph 6.04 of the General Conditions with the following provisions:

SC-6.04 Supplement Paragraph 6.04 of the General Conditions with the following provisions:

**H. Builder’s Risk and Other Property Insurance Deductibles:** The purchaser of any required builder’s risk, installation floater, or other property insurance will be responsible for costs not covered because of the application of a policy deductible.

SC-6.04 Delete Paragraph 6.04.A of the General Conditions and substitute the following in its place:

**B. Installation Floater**

1. Contractor shall provide and maintain installation floater insurance on a broad form or "all risk" policy providing coverage for materials, supplies, machinery, fixtures, and equipment that will be incorporated into the Work ("Covered Property"). Coverage under the Contractor's installation floater will include loss from covered "all risk" causes (perils) to Covered Property:
  - a. of the Contractor, and Covered Property of others that is in Contractor's care, custody, and control;
  - b. while in transit to the Site, including while at temporary storage sites;
  - c. while at the Site awaiting and during installation, erection, and testing;
  - d. continuing at least until the installation or erection of the Covered Property is completed, and the Work into which it is incorporated is accepted by Owner.
2. The installation floater coverage cannot be contingent on an external cause or risk, or limited to property for which the Contractor is legally liable.
3. The installation floater coverage will be in an amount sufficient to protect Contractor's interest in the Covered Property. The Contractor will be solely responsible for any deductible carried under this coverage.
4. This policy will include a waiver of subrogation applicable to Owner, Contractor, Engineer, all Subcontractors, and the officers, directors, partners, employees, agents and other consultants and subcontractors of any of them.

## ARTICLE 7 - CONTRACTOR'S RESPONSIBILITIES

### 7.03 Labor; Working Hours

SC-7.03 Add the following new subparagraphs immediately after Paragraph 7.03.C:

1. Regular working hours will be as specified in Section 01-0001 - PROGRESS CLAUSE.
2. Owner's legal holidays are as specified in Section 01-0001 - PROGRESS CLAUSE.

SC-7.03 Amend the first and second sentences of Paragraph 7.03.C to state "...all Work at the Site must be performed during regular working hours, Monday through Saturday. Contractor will not perform Work on a Sunday, or any legal holiday."

SC-7.03 Add the following new paragraph immediately after Paragraph 7.03.C:

D. Owner shall be responsible for the cost of any overtime pay or other expense incurred by the Owner for Engineer's services (including those of the Resident Project Representative, if any), Owner's representative, and construction observation services, occasioned by the performance of Work on Saturday, Sunday, any legal holiday, or as overtime on any regular work day. If Contractor is responsible but does

not pay, or if the parties are unable to agree as to the amount owed, then Owner may impose a reasonable set-off against payments due under Article 15.

#### **ARTICLE 8 - OTHER WORK AT THE SITE**

No suggested Supplementary Conditions in this Article.

#### **ARTICLE 9 - OWNER'S RESPONSIBILITIES**

No suggested Supplementary Conditions in this Article.

#### **ARTICLE 10 ENGINEER'S STATUS DURING CONSTRUCTION**

##### *10.03 Resident Project Representative*

SC-10.03 Add the following new paragraphs immediately after Paragraph 10.03.B:

C. The Resident Project Representative (RPR) will be Engineer's representative at the Site. RPR's dealings in matters pertaining to the Work in general will be with Engineer and Contractor. RPR's dealings with Subcontractors will only be through or with the full knowledge or approval of Contractor. The RPR will:

1. *Conferences and Meetings:* Attend meetings with Contractor, such as preconstruction conferences, progress meetings, job conferences, and other Project-related meetings (but not including Contractor's safety meetings), and as appropriate prepare and circulate copies of minutes thereof.
2. *Safety Compliance:* Comply with Site safety programs, as they apply to RPR, and if required to do so by such safety programs, receive safety training specifically related to RPR's own personal safety while at the Site.
3. *Liaison*
  - a. Serve as Engineer's liaison with Contractor. Working principally through Contractor's authorized representative or designee, assist in providing information regarding the provisions and intent of the Contract Documents.
  - b. Assist Engineer in serving as Owner's liaison with Contractor when Contractor's operations affect Owner's on-Site operations.
  - c. Assist in obtaining from Owner additional details or information, when required for Contractor's proper execution of the Work.
4. *Review of Work; Defective Work*
  - a. Conduct on-Site observations of the Work to assist Engineer in determining, to the extent set forth in Paragraph 10.02, if the Work is in general proceeding in accordance with the Contract Documents.
  - b. Observe whether any Work in place appears to be defective.

- c. Observe whether any Work in place should be uncovered for observation, or requires special testing, inspection or approval.
5. *Inspections and Tests*
- a. Observe Contractor-arranged inspections required by Laws and Regulations, including but not limited to those performed by public or other agencies having jurisdiction over the Work.
  - b. Accompany visiting inspectors representing public or other agencies having jurisdiction over the Work.
6. *Payment Requests: Review Applications for Payment with Contractor.*
7. *Completion*
- a. Participate in Engineer's visits regarding Substantial Completion.
  - b. Assist in the preparation of a punch list of items to be completed or corrected.
  - c. Participate in Engineer's visit to the Site in the company of Owner and Contractor regarding completion of the Work, and prepare a final punch list of items to be completed or corrected by Contractor.
  - d. Observe whether items on the final punch list have been completed or corrected.
- D. The RPR will not:
- 8. Authorize any deviation from the Contract Documents or substitution of materials or equipment (including "or-equal" items).
  - 9. Exceed limitations of Engineer's authority as set forth in the Contract Documents.
  - 10. Undertake any of the responsibilities of Contractor, Subcontractors, or Suppliers.
  - 11. Advise on, issue directions relative to, or assume control over any aspect of the means, methods, techniques, sequences or procedures of construction.
  - 12. Advise on, issue directions regarding, or assume control over security or safety practices, precautions, and programs in connection with the activities or operations of Owner or Contractor.
  - 13. Participate in specialized field or laboratory tests or inspections conducted off-site by others except as specifically authorized by Engineer.
  - 14. Authorize Owner to occupy the Project in whole or in part.

## **ARTICLE 11 - CHANGES TO THE CONTRACT**

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No suggested Supplementary Conditions in this Article.

**ARTICLE 12 - CLAIMS**

No suggested Supplementary Conditions in this Article.

**ARTICLE 13 - COST OF WORK; ALLOWANCES, UNIT PRICE WORK**

*13.01 Cost of the Work*

SC-13.01 Supplement Paragraph 13.01.B.5.c.(2) by adding the following sentence:

The equipment rental rate book that governs the included costs for the rental of machinery and equipment owned by Contractor (or a related entity) under the Cost of the Work provisions of this Contract is the most current edition of **MDOT Equipment Rental Rates Schedule C - Report 375**.

SC-13.01 Supplement Paragraph 13.01.C.2 by adding the following definition of small tools and hand tools:

For purposes of this paragraph, “small tools and hand tools” means any tool or equipment whose current price if it were purchased new at retail would be less than \$500.

*13.03 Unit Price Work*

SC-13.03 Delete Paragraph 13.03.E in its entirety and insert the following in its place:

*E. Adjustments in Unit Price*

1. Contractor or Owner shall be entitled to an adjustment in the unit price with respect to an item of Unit Price Work if:
  - a. the extended price of a particular item of Unit Price Work amounts to 5 percent or more of the Contract Price (based on estimated quantities at the time of Contract formation) and the variation in the quantity of that particular item of Unit Price Work actually furnished or performed by Contractor differs by more than **25** percent from the estimated quantity of such item indicated in the Agreement; and
  - b. Contractor’s unit costs to perform the item of Unit Price Work have changed materially and significantly as a result of the quantity change.
2. The adjustment in unit price will account for and be coordinated with any related changes in quantities of other items of Work, and in Contractor’s costs to perform such other Work, such that the resulting overall change in Contract Price is equitable to Owner and Contractor.
3. Adjusted unit prices will apply to all units of that item.

**ARTICLE 14 - TESTS AND INSPECTIONS; CORRECTION, REMOVAL, OR ACCEPTANCE OF DEFECTIVE WORK**

No suggested Supplementary Conditions in this Article.

**ARTICLE 15 - PAYMENTS TO CONTRACTOR, SET OFFS; COMPLETIONS; CORRECTION PERIOD**

*15.03 Substantial Completion*

SC-15.03 Add the following new subparagraph to Paragraph 15.03.B:

1. If some or all of the Work has been determined not to be at a point of Substantial Completion and will require re-inspection or re-testing by Engineer, the cost of such re-inspection or re-testing, including the cost of time, travel and living expenses, will be paid by Contractor to Owner. If Contractor does not pay, or the parties are unable to agree as to the amount owed, then Owner may impose a reasonable set-off against payments due under this Article 15.

**ARTICLE 16 - SUSPENSION OF WORK AND TERMINATION**

No suggested Supplementary Conditions in this Article.

**ARTICLE 17 - FINAL RESOLUTIONS OF DISPUTES**

*17.02 Arbitration*

SC-17.02 Add the following new paragraph immediately after Paragraph 17.01.

*17.02 Arbitration*

- A. All matters subject to final resolution under this Article will be settled by arbitration administered by the American Arbitration Association in accordance with its Construction Industry Arbitration Rules (subject to the conditions and limitations of this Paragraph SC-17.02). Any controversy or claim in the amount of \$100,000 or less will be settled in accordance with the American Arbitration Association's supplemental rules for Fixed Time and Cost Construction Arbitration. This agreement to arbitrate will be specifically enforceable under the prevailing law of any court having jurisdiction.
- B. The demand for arbitration will be filed in writing with the other party to the Contract and with the selected arbitration administrator, and a copy will be sent to Engineer for information. The demand for arbitration will be made within the specific time required in Article 17, or if no specified time is applicable within a reasonable time after the matter in question has arisen, and in no event will any such demand be made after the date when institution of legal or equitable proceedings based on such matter in question would be barred by the applicable statute of limitations.
- C. The arbitrator(s) must be licensed engineers, contractors, attorneys, or construction managers. Hearings will take place pursuant to the standard procedures of the

Construction Arbitration Rules that contemplate in-person hearings. The arbitrators will have no authority to award punitive or other damages not measured by the prevailing party's actual damages, except as may be required by statute or the Contract. Any award in an arbitration initiated under this clause will be limited to monetary damages and include no injunction or direction to any party other than the direction to pay a monetary amount.

- D. The Arbitrators will have the authority to allocate the costs of the arbitration process among the parties, but will only have the authority to allocate attorneys' fees if a specific Law or Regulation or this Contract permits them to do so.
- E. The award of the arbitrators must be accompanied by a reasoned written opinion and a concise breakdown of the award. The written opinion will cite the Contract provisions deemed applicable and relied on in making the award.
- F. The parties agree that failure or refusal of a party to pay its required share of the deposits for arbitrator compensation or administrative charges will constitute a waiver by that party to present evidence or cross-examine witness. In such event, the other party shall be required to present evidence and legal argument as the arbitrator(s) may require for the making of an award. Such waiver will not allow for a default judgment against the non-paying party in the absence of evidence presented as provided for above.
- G. No arbitration arising out of or relating to the Contract will include by consolidation, joinder, or in any other manner any other individual or entity (including Engineer, and Engineer's consultants and the officers, directors, partners, agents, employees or consultants of any of them) who is not a party to this Contract unless:
  - 1. the inclusion of such other individual or entity will allow complete relief to be afforded among those who are already parties to the arbitration;
  - 2. such other individual or entity is substantially involved in a question of law or fact which is common to those who are already parties to the arbitration, and which will arise in such proceedings;
  - 3. such other individual or entity is subject to arbitration under a contract with either Owner or Contractor, or consents to being joined in the arbitration; and
  - 4. the consolidation or joinder is in compliance with the arbitration administrator's procedural rules.
- H. The award will be final. Judgment may be entered upon it in any court having jurisdiction thereof, and it will not be subject to modification or appeal, subject to provisions of the Laws and Regulations relating to vacating or modifying an arbitral award.
- I. Except as may be required by Laws or Regulations, neither party nor an arbitrator may disclose the existence, content, or results of any arbitration hereunder without the prior written consent of both parties, with the exception of any disclosure required by Laws and Regulations or the Contract. To the extent any disclosure is allowed pursuant to the exception, the disclosure must be strictly and narrowly limited to

maintain confidentiality to the extent possible.

## ARTICLE 18 - MISCELLANEOUS

No suggested Supplementary Conditions in this Article.

### EXHIBIT A - SOFTWARE REQUIREMENTS FOR ELECTRONIC DOCUMENT EXCHANGE

Item	Electronic Documents	Transmittal Means	Data Format
a.1	General communications, transmittal covers, meeting notices and responses to general information requests for which there is no specific prescribed form.	Email	Email
a.2 <sup>(2)</sup>	Meeting agendas, meeting minutes, RFI's and responses to RFI's, and Contract forms.	Email w/Attachment	PDF
a.3	Contactors Submittals (Shop Drawings, "or equal" requests, substitution requests, documentation accompanying Sample submittals and other submittals) to Owner and Engineer, and Owner's and Engineer's responses to Contractor's Submittals, Shop Drawings, correspondence, and Applications for Payment.	Email w/Attachment or LFE	PDF
a.4	Correspondence; milestone and final version Submittals of reports, layouts, Drawings, maps, calculations and spreadsheets, Specifications, Drawings and other Submittals from Contractor to Owner or Engineer and for responses from Engineer and Owner to Contractor regarding Submittals.	Email w/Attachment or LFE	PDF
a.5	Layouts and drawings to be submitted to Owner for future use and modification.	Email w/Attachment or LFE	DWG
a.6	Correspondence, reports and Specifications to be submitted to Owner for future word processing use and modification.	Email w/Attachment or LFE	DOC
a.7	Spreadsheets and data to be submitted to Owner for future data processing use and modification.	Email w/Attachment or LFE	EXC
a.8	Database files and data to be submitted to Owner for future data processing use and modification	Email w/Attachment or LFE	DB
<i>Note 1 - All exchanges and uses of transmitted data are subject to the appropriate provisions of Contract Documents.</i>			
<i>Note 2 - Transmittal of written notices is governed by Paragraph 18.01 of the General Conditions.</i>			
Key			
Email			
LFE	Agreed upon Large File Exchange method (FTP, CD, DVD, hard drive)		

PDF	Portable Document Format readable by Adobe® Acrobat Reader Version [number] or later
DWG	Autodesk® AutoCAD .dwg format Version 2019
DOC	Microsoft® Word .docx format Version Office 365
EXC	Microsoft® Excel .xls or .xml format Version Office 365
DB	Microsoft® Access .mdb format Version Office 365

## SUPPLEMENTARY CONTRACT REQUIREMENTS

### ADMINISTRATIVE REQUIREMENTS:

#### 1.01 *References and Standards*

- A. For products and workmanship specified by reference to a document or documents not included in the Contract Documents, also referred to as reference standards, comply with requirements of the standard, except when more rigid requirements are specified or are required by applicable codes.
- B. Comply with reference standard of date of issue current on date of Contract Documents, except where a specific date is established by applicable code.
- C. Obtain copies of standards as necessary. Maintain copy at Site during submittals, planning, and progress of the specific work, until Substantial Completion.
- D. Should specified reference standards conflict with Contract Documents, request clarification from Engineer before proceeding.
- E. Neither the contractual relationships, duties, or responsibilities of the parties in Contract nor those of Engineer shall be altered from the Contract Documents by mention or inference otherwise in any reference document.

#### 1.02 *General Administrative Requirements*

- A. Make the following types of submittals to Engineer:
  - 1. Requests for Information (RFI).
  - 2. Requests for substitution.
  - 3. Shop drawings, product data, and samples.
  - 4. Test and inspection reports.
  - 5. Design data.
  - 6. Manufacturer's instructions and field reports.
  - 7. Applications for payment and change order requests.
  - 8. Progress Schedules, Schedule of Submittals, Schedule of Values.
  - 9. Coordination drawings.
  - 10. Closeout submittals.

#### 1.03 *Preconstruction Meeting*

- A. Engineer will schedule a meeting after Notice of Award.

1. Attendance Required:
  - a. Owner
  - b. Engineer
  - c. Contractor:
    - 1) Project Manager
    - 2) Site Superintendent
    - 3) Specialty and Designated Item Subcontracts and/or Suppliers as required in Section **01-0001 - PROGRESS CLAUSE.**
2. Attendance Requested:
  - a. Utility Companies
  - b. Drain Commissioner
  - c. Road Commission
  - d. Fire Officials
  - e. Police Officials
  - f. Property Owners along the right-of-way within the project limits (to discuss the private utilities such as irrigation systems within the Construction Influence Area)
3. Agenda:
  - a. Utility Company concerns;
  - b. Material Testing requirements;
  - c. Owner execution of Owner-Contractor Agreement, and distribution of Contract Documents;
  - d. Procedures and processing of field decisions, Submittals, Substitutions, Change Proposals, Field Orders, Work Change Directives, and Contract closeout procedures;
  - e. Review of Progress Schedule;
  - f. Review of Plans and Special Provisions
  - g. Use of premises by Owner and Contractor;
  - h. Owner's requirements and occupancy prior to completion;

- i. Construction facilities and controls;
  - j. Temporary utilities;
  - k. Construction Staking;
  - l. Security and housekeeping procedures;
  - m. Procedures for maintaining record documents;
4. Distribution
- a. Engineer will record minutes and distribute copies to participants, with copies to Owner, Contractor, participants, and those affected by decisions made.

1.04 ***Progress Meetings***

A. Contractor shall:

- 1. Schedule and administer meetings throughout progress of the work at maximum monthly intervals.
- 2. Make arrangements for meetings, prepare agenda with copies for participants, preside at meetings.
- 3. Attendance Required:
  - a. Contractor
  - b. Owner
  - c. Engineer
  - d. Contractor's Project Manager and Superintendent
  - e. Specialty and Designated Item Subcontracts and/or Suppliers as required in Section **01-0001 - PROGRESS CLAUSE**.
- 4. Agenda:
  - a. Review minutes of previous meetings.
  - b. Review of work progress.
  - c. Field observations, problems, and decisions.
  - d. Identification of problems that impede, or will impede, planned progress.
  - e. Review of Schedule of Submittals and status of submittals.
  - f. Review of RFIs log and status of responses.

- g. Review of off-site fabrication and delivery schedules.
  - h. Maintenance of Progress Schedule.
  - i. Corrective measures to regain projected schedules.
  - j. Planned progress during succeeding work period.
  - k. Coordination of projected progress.
  - l. Maintenance of quality and work standards.
  - m. Effect of proposed changes on Progress Schedule and coordination.
  - n. Other business relating to Work.
5. Record minutes and distribute copies within 5 business days after meeting to participants, with copies to Engineer, Owner, participants, and those affected by decisions made.

1.05 **Requests for Information (RFI)**

- A. Definition: A request seeking one of the following:
- 1. An interpretation, amplification, or clarification of some requirement of Contract Documents arising from inability to determine from them the exact material, process, or system to be installed; or when the elements of construction are required to occupy the same space (interference); or when an item of work is described differently at more than one place in the Contract Documents.
  - 2. A resolution to an issue which has arisen due to field conditions and affects design intent.
- B. Whenever possible, request clarifications at the next appropriate project progress meeting, with response entered into meeting minutes, rendering unnecessary the issuance of a formal RFI.
- C. Preparation: Prepare an RFI immediately upon discovery of a need for additional information or interpretation of the Contract Documents. Failure to submit a RFI in a timely manner is not a legitimate cause for claiming additional costs or delays in execution of the Work.
- 1. Prepare a separate RFI for each specific item.
    - a. Review, coordinate, and comment on requests originating with Subcontractors and/or materials Suppliers.
    - b. Do not forward requests which solely require internal coordination between Subcontractors.
  - 2. Prepare in a format and with content acceptable to Owner.

3. Combine RFI and its attachments into a single electronic file. PDF format is preferred.
- D. Reason for the RFI: Prior to initiation of an RFI, carefully study all Contract Documents to confirm that information sufficient for their interpretation is definitely not included.
1. Include in each request Contractor's signature attesting to good faith effort to determine from the Contract Documents information requiring interpretation.
  2. Unacceptable Uses for RFIs: Do not use RFIs to request the following:
    - a. Approval of submittals (use procedures specified elsewhere in this section).
    - b. Approval of or-equals and substitutions.
    - c. Changes that entail change in Contract Times and Contract Prices.
    - d. Different methods of performing Work than those indicated in the Contract Drawings and Specifications.
  3. Improper RFIs: Requests not prepared in conformance to requirements of this section, and/or missing key information required to render an actionable response. They will be returned without a response, with an explanatory notation.
  4. Frivolous RFIs: Requests regarding information that is clearly indicated on, or reasonably inferable from, the Contract Documents, with no additional input required to clarify the question. They will be returned without a response, with an explanatory notation.
    - a. The Owner reserves the right to assess the Contractor for the costs (on time-and-materials basis) incurred by the Engineer, and any of its consultants, due to processing of such RFIs.
- E. Content: Include identifiers necessary for tracking the status of each RFI, and information necessary to provide an actionable response.
1. Official Project name and number, and any additional required identifiers established in Contract Documents.
  2. Owner's, Engineer's, and Contractor's names.
  3. Discrete and consecutive RFI number, and descriptive subject/title.
  4. Issue date, and requested reply date.
  5. Reference to particular Contract Document(s) requiring additional information or interpretation. Identify pertinent drawing and detail number and/or specification section number, title, and paragraph(s).

6. Annotations: Field dimensions and/or description of conditions which have engendered the request.
  7. Contractor's suggested resolution: A written and/or a graphic solution, to scale, is required in cases where clarification of coordination issues is involved, for example; routing, clearances, and/or specific locations of work shown diagrammatically in Contract Documents. If applicable, state the likely impact of the suggested resolution on Contract Times or the Contract Prices.
- F. Attachments: Include sketches, coordination drawings, descriptions, photos, submittals, and other information necessary to substantiate the reason for the request.
- G. RFI Log: Prepare and maintain a tabular log of RFIs for the duration of the project.
1. Indicate current status of every RFI. Update log promptly and on a regular basis.
  2. Note dates of when each request is made, and when a response is received.
  3. Highlight items requiring priority or expedited response.
  4. Highlight items for which a timely response has not been received to date.
  5. Identify and include improper or frivolous RFIs.
- H. Review Time: Engineer will endeavor to respond and return RFIs to Contractor within 7 calendar days of receipt. For the purpose of establishing the start of the response period, RFIs received after 12:00 noon will be considered as having been received on the following regular working day.
1. Response period may be shortened or lengthened for specific items, based on the complexity of the RFI.
- I. Responses: Content of answered RFIs will not constitute in any manner a directive or authorization to perform extra work or delay the project.
1. Response may include a request for additional information, in which case the original RFI will be deemed as having been answered, and an amended one is to be issued forthwith. Identify the amended RFI with an R suffix to the original number.
  2. Do not extend applicability of a response to specific item to encompass other similar conditions, unless specifically so noted in the response.
  3. Upon receipt of a response, promptly review and distribute it to all affected parties, and update the RFI Log.
  4. Notify Engineer within 7 calendar days if an additional or corrected response is required by submitting an amended version of the original RFI, identified as specified above.

1.06 **Submittals**

A. Submittal Schedule

1. Submit to Engineer for review a Schedule of Submittals in tabular format.
  - a. Coordinate with Contractor's Progress Schedule, Schedule of Values, and Schedule of Items.
  - b. Format schedule to allow tracking of status of submittals throughout duration of construction.
  - c. Arrange information to include scheduled date for initial submittal, specification number and title, submittal category (for review or for information), description of item of work covered, and role and name of subcontractor.
  - d. Account for time required for preparation, review, manufacturing, fabrication and delivery when establishing submittal delivery and review deadline dates.
    - 1) For assemblies, equipment, systems comprised of multiple components and/or requiring detailed coordination with other work, allow for additional time to make corrections or revisions to initial submittals, and time for their review.

B. Submittals for Review

1. Submit the following for review:
  - a. Material Certificates
  - b. Material Source Lists. Use [MDOT Form 0501](#).
  - c. Product data.
  - d. Shop drawings.
  - e. Samples for selection.
  - f. Samples for verification.
2. Submit to Engineer for review for the limited purpose of checking for compliance with information given and the design concept expressed in the contract documents.
3. Samples will be reviewed for aesthetic, color, or finish selection.

C. Submittals for Information

1. When the following are specified in individual sections, submit them for information:
  - a. Design Data: Submit for Engineer's knowledge for the limited purpose of assessing conformance with information given and the design concept

expressed in the Contract Documents, or for Owner's information.

- b. Certificates: When specified in individual specification sections, submit certification by the manufacturer and Contractor or installation/application subcontractor to Engineer, in quantities specified for Product Data.
    - 1) Indicate material or product complies with or exceeds specified requirements. Submit supporting reference data, affidavits, and certifications as appropriate.
    - 2) Certificates may be recent or previous test results on material or product, but must be acceptable to Engineer.
  - c. Manufacturer's Instructions: When specified in individual specification sections, submit printed instructions for delivery, storage, assembly, installation, start-up, adjusting, and finishing, for Owner's information. Indicate special procedures, perimeter conditions requiring special attention, and special environmental criteria required for application or installation.
  - d. Manufacturer's Field Reports: Submit reports to Engineer. Submit for information for the limited purpose of assessing conformance with information given and the design concept expressed in the Contract Documents.
  - e. Test reports.
  - f. Inspection reports.
  - g. Other types indicated.
2. Submit for Engineer's knowledge as contract administrator or for Owner.

**D. Number of Copies of Submittals**

- 1. Documents for Review:
  - a. Small Size Sheets, Not Larger Than 8-1/2 by 11 inches: Submit the number of copies that Contractor requires, plus three copies that will be retained by Engineer.
  - b. Larger Sheets, Not Larger Than 36 by 48 inches: Submit the number of opaque reproductions that Contractor requires, plus three copies that will be retained by Engineer.
  - c. Submit one electronic copy in PDF format; an electronically-marked up file will be returned. Create PDFs at native size and right-side up; illegible files will be rejected.
- 2. Samples: Submit the number specified in individual specification sections; one of which will be retained by Engineer.
  - a. After review, produce duplicates.

- b. Retained samples will not be returned to Contractor unless specifically so stated.

E. Submittal Procedures

1. Submit in accordance with subsection 7.16 of Section **00-7001 - EJCDC C-700 STANDARD GENERAL CONDITIONS OF THE CONSTRUCTION CONTRACT.**
2. General Requirements:
  - a. Use a single transmittal for related items.
  - b. Submit separate packages of submittals for review and submittals for information, when included in the same specification section.
  - c. Transmit using approved form.
    - 1) Use Contractor's form, subject to prior approval by Engineer.
  - d. Sequentially identify each item. For revised submittals use original number and a sequential numerical suffix.
  - e. Identify: Project; Contractor; Subcontractor or Supplier; pertinent drawing and detail number; and specification section number and article/paragraph, as appropriate on each copy.
  - f. Apply Contractor's stamp, signed or initialed certifying that review, approval, verification of products required, field dimensions, adjacent construction work, and coordination of information is in accordance with the requirements of the Work and Contract Documents.
    - 1) Submittals from sources other than the Contractor, or without Contractor's stamp will not be acknowledged, reviewed, or returned.
  - g. Deliver each submittal on date noted in Schedule of Submittals, unless an earlier date has been agreed to by all affected parties, and is of the benefit to the project.
    - 1) Deliver submittals to Engineer at business address.
  - h. Schedule submittals to expedite the Project, and coordinate submission of related items.
    - 1) For each submittal for review, allow 15 days excluding delivery time to and from the Contractor.
    - 2) For sequential reviews involving Engineer's consultants, Owner, or another affected party, allow an additional 7 days.
  - i. Identify variations from Contract Documents and product or system limitations that may be detrimental to successful performance of the completed Work.

- j. Provide space for Contractor and Engineer review stamps.
- k. When revised for resubmission, identify all changes made since previous submission.
- l. Distribute reviewed submittals. Instruct parties to promptly report inability to comply with requirements.
- m. Incomplete submittals will not be reviewed, unless they are partial submittals for distinct portion(s) of the work, and have received prior approval for their use.

F. Product Data Procedures:

- 1. Submit concurrently with related Shop Drawing submittal.

G. Shop Drawing Procedures:

- 1. Prepare accurate, drawn-to-scale, original shop drawing documentation by interpreting the Contract Documents and coordinating related Work.
- 2. Generic, non-project-specific information submitted as Shop Drawings do not meet the requirements for Shop Drawings.

H. Samples Procedures:

- 1. Transmit related items together as single package.
- 2. Identify each item to allow review for applicability in relation to Shop Drawings showing installation locations.

1.07 ***Submittal Review***

- A. Submittals for Review: Engineer will review each submittal, and approve, or take other appropriate action.
- B. Submittals for Information: Engineer will not acknowledge receipt, and take no other action.
- C. Engineer's actions will be reflected by marking each returned submittal using actual stamp on hard copies of submittals.
  - 1. Notations may be made directly on submitted items and/or listed on appended Submittal Review cover sheet.
- D. Engineer's and consultants' actions on items submitted for review:
  - 1. Authorizing purchasing, fabrication, delivery, and installation:
    - a. "No Exceptions Taken", or language with same legal meaning.

- b. "Approved as Noted, Resubmission not required", or language with same legal meaning.
  - 1) At Contractor's option, submit corrected item, with review notations acknowledged and incorporated.
- c. "Approved as Noted, Resubmit for Record", or language with same legal meaning.
  - 1) Resubmit corrected item, with review notations acknowledged and incorporated. Resubmit separately, or as part of Project record documents.
  - 2) Non-responsive resubmittals may be rejected.
- 2. Not Authorizing fabrication, delivery, and installation:
  - a. "Revise and Resubmit".
    - 1) Resubmit revised item, with review notations acknowledged and incorporated.
    - 2) Non-responsive resubmittals may be rejected.
  - b. "Rejected".
    - 1) Submit item complying with requirements of Contract Documents.
- E. Engineer's and consultants' actions on items submitted for information:
  - 1. Items for which no action was taken:
    - a. "Received" - to notify the Contractor that the submittal has been received for record only.
  - 2. Items for which action was taken:
    - a. "Reviewed" - no further action is required from Contractor.

**QUALITY REQUIREMENTS:**

**2.01 *Testing and Inspection***

- A. Contractor Responsibilities:
  - 1. Provide adequate samples of materials proposed to be used that require testing, along with proposed mix designs.
  - 2. Cooperate with laboratory personnel, and provide access to the Work.
  - 3. Provide incidental labor and facilities:

- a. To provide access to Work to be tested/inspected.
  - b. To obtain and handle samples at the site or at source of products to be tested/inspected.
  - c. To facilitate tests/inspections.
  - d. To provide storage and curing of test samples.
4. Notify Engineer and laboratory 72 hours prior to expected time for operations requiring testing/inspection services.
  5. Re-testing required because of non-compliance with specified requirements shall be paid for by Contractor.

**TEMPORARY FACILITIES AND CONTROLS:**

**3.01 *Temporary Sanitary Facilities***

- A. Provide and maintain required facilities and enclosures. Provide at time of project mobilization.
- B. Maintain daily in clean and sanitary condition.

**3.02 *Vehicular Access and Parking***

- A. Coordinate access and haul routes with governing authorities and Owner.
- B. Provide and maintain access to fire hydrants, free of obstructions.
- C. Provide means of removing mud from vehicle wheels before entering streets.
- D. Provide temporary parking areas to accommodate construction personnel. When Site space is not adequate, provide additional off-site parking.

**3.03 *Removal of Utilities, Facilities, and Controls***

- A. Remove temporary utilities, equipment, facilities, materials, prior to Date of Substantial Completion inspection.
- B. Clean and repair damage caused by installation or use of temporary Work.

**PRODUCT REQUIREMENTS:**

**4.01 *Transportation and Handling***

- A. Package products for shipment in manner to prevent damage; for equipment, package to avoid loss of factory calibration.
- B. If special precautions are required, attach instructions prominently and legibly on outside of packaging.

- C. Coordinate schedule of product delivery to designated prepared areas in order to minimize site storage time and potential damage to stored materials.
- D. Transport and handle products in accordance with manufacturer's instructions.
- E. Transport materials in covered trucks to prevent contamination of product and littering of surrounding areas.
- F. Promptly inspect shipments to ensure that products comply with requirements, quantities are correct, and products are undamaged.
- G. Provide equipment and personnel to handle products by methods to prevent soiling, disfigurement, or damage, and to minimize handling.

**4.02 Storage and Protection**

- A. Store and protect products in accordance with manufacturers' instructions.
- B. Store with seals and labels intact and legible.
- C. Store sensitive products in weather tight, climate controlled enclosures in an environment favorable to product.
- D. For exterior storage of fabricated products, place on sloped supports above ground.
- E. Protect products from damage or deterioration due to construction operations, weather, precipitation, humidity, temperature, sunlight and ultraviolet light, dirt, dust, and other contaminants.
- F. Comply with manufacturer's warranty conditions, if any.
- G. Cover products subject to deterioration with impervious sheet covering. Provide ventilation to prevent condensation and degradation of products.
- H. Store loose granular materials on solid flat surfaces in a well-drained area. Prevent mixing with foreign matter.
- I. Prevent contact with material that may cause corrosion, discoloration, or staining.
- J. Provide equipment and personnel to store products by methods to prevent soiling, disfigurement, or damage.
- K. Arrange storage of products to permit access for inspection. Periodically inspect to verify products are undamaged and are maintained in acceptable condition.

**CLOSEOUT SUBMITTALS:**

**5.01 Submittals**

- A. Project Record Documents: Submit documents to Engineer with the following modification(s):

1. Submit Project Record Documents in final form, two hard copies and one electronic copy in pdf format, prior to submission of the final Application for Payment. These sets can be color reproductions of the field set maintained throughout construction.
- B. Warranties and Bonds: Submit documents to Engineer with the following modification(s):
1. For equipment or component parts of equipment put into service during construction with Owner's permission, submit documents within 10 days after acceptance.
  2. Make other submittals within 10 days after Date of Substantial Completion, prior to final Application for Payment.
  3. For items of Work for which acceptance is delayed beyond Date of Substantial Completion, submit within 10 days after acceptance, listing the date of acceptance as the beginning of the warranty period.
  4. Submit Warranties and Bonds in final form, two hard copies and one electronic copy in pdf format, prior to submission of the final Application for Payment.

5.02 ***Project Record Documents***

- A. Maintain on site one set of the following record documents; record actual revisions to the Work:
1. Drawings.
  2. Specifications.
  3. Addenda.
  4. Change Orders.
  5. Work Change Directives.
  6. Field Orders.
  7. Written Interpretations and Clarifications.
  8. Approved Shop Drawings, product data, and samples.
  9. Manufacturer's instruction for assembly, installation, and adjusting.
- B. Ensure entries are complete and accurate, enabling future reference by Owner.
- C. Store record documents separate from documents used for construction.
- D. Record information concurrent with construction progress.

- E. Specifications: Legibly mark and record at each product section description of actual products installed, including the following:
  1. Manufacturer's name and product model and number.
  2. Product substitutions or alternates utilized.
  3. Changes made by Addenda and modifications.
- F. Record Drawings and Shop Drawings: In addition to requirements of individual specification sections, legibly mark each item to record actual construction including:
  1. Measured depths of foundations in relation to finish first floor datum.
  2. Measured horizontal and vertical locations of underground utilities and appurtenances, referenced to permanent surface improvements.
  3. Measured locations of internal utilities and appurtenances concealed in construction, referenced to visible and accessible features of the Work.
  4. Field changes of dimension and detail.
  5. Details not on original Drawings.
  6. Diagram of all trace wire systems and appurtenances.

### 5.03 ***Warranties and Bonds***

- A. Maintain bonds for durations required.
- B. Provide Maintenance and Guarantee Bond on form prescribed in Section **00-6120 - EJCDC C-612 WARRANTY BOND** (when required).
- C. Verify that documents are in proper form, contain full information.
- D. Co-execute submittals when required.
- E. Retain warranties until time specified for submittal.
- F. Manual: Bind in commercial quality 8-1/2 by 11 inch three D side ring binders with durable plastic covers.
- G. Cover: Identify each binder with typed or printed title WARRANTIES AND BONDS, with title of Project; name, address and telephone number of Contractor and equipment supplier; and name of responsible company principal.
- H. Table of Contents: Neatly typed, in the sequence of the Table of Contents of the Project Manual, with each item identified with the number and title of the specification section in which specified, and the name of product or Work item.
- I. Separate each warranty or bond with index tab sheets keyed to the Table of Contents listing. Provide full information, using separate typed sheets as necessary.

Section **00-9000**

List Subcontractor, Supplier, and manufacturer, with name, address, and telephone number of responsible principal.

**END OF SECTION**

**EJCDC C-940 WORK CHANGE DIRECTIVE**

Owner: **City of Grand Ledge**  
Engineer: **Wolverine Engineers & Surveyors, Inc**  
Contractor: **Contractor Name**  
Project: **City of Grand Ledge - River and Harrison Streets Improvements**  
Contract Name: \_\_\_\_\_  
Date Issued: \_\_\_\_\_

Owner's Project No.:  
Engineer's Project No.: **24-0013**  
Contractor's Project No.:  
Effective Date of Work Change Directive:  
\_\_\_\_\_

Contractor is directed to proceed promptly with the following change(s):

Description:

**See attached MDOT Form 1137**

Attachments:

**See attached MDOT Form 1137**

Purpose for the Work Change Directive:

**See attached MDOT Form 1137**

Directive to proceed promptly with the Work described herein, prior to agreeing to change in Contract Price and Contract Time, is issued due to:

Non-agreement on pricing of proposed change.  Necessity to proceed for schedule or other reasons.

Estimated Change in Contract Price and Contract Times (non-binding, preliminary):

Contract Price: \$ \_\_\_\_\_ [increase] [decrease] [not yet estimated].  
Contract Time: \_\_\_\_\_ days [increase] [decrease] [not yet estimated].

Basis of estimated change in Contract Price:

Lump Sum  Unit Price  Cost of the Work  Other

	Recommended by Engineer	Authorized by Owner
By:	_____	_____
Title:	_____	_____
Date:	_____	_____

**CHANGE PROPOSAL**

Owner: **City of Grand Ledge**  
 Engineer: **Wolverine Engineers & Surveyors, Inc**  
 Contractor: **Contractor Name**  
 Project: **City of Grand Ledge - River and Harrison Streets Improvements**  
 Contract Name: \_\_\_\_\_  
 Date Issued: \_\_\_\_\_

Owner's Project No.: \_\_\_\_\_  
 Engineer's Project No.: **24-0013**  
 Contractor's Project No.: \_\_\_\_\_

The Contract will be modified by Change Order upon approval of this Change Proposal:

Description: \_\_\_\_\_

Attachments: \_\_\_\_\_

Change in Contract Price	Change in Contract Times
Original Contract Price: \$ _____	Original Contract Times: _____ Substantial Completion: _____ Ready for final payment: _____
[Increase] [Decrease] from previously approved Change Orders No. 1 to No. ____: \$ _____	[Increase] [Decrease] from previously approved Change Orders No.1 to No.____: Substantial Completion: _____ Ready for final payment: _____
Contract Price prior to this Change Proposal: \$ _____	Contract Times prior to this Change Proposal: Substantial Completion: _____ Ready for final payment: _____
[Increase] [Decrease] this Change Proposal: \$ _____	[Increase] [Decrease] this Change Proposal: Substantial Completion: _____ Ready for final payment: _____
Contract Price incorporating this Change Proposal: \$ _____	Contract Times incorporating this Change Proposal: Substantial Completion: _____ Ready for final payment: _____

REQUESTED BY:

By: \_\_\_\_\_ [  ] Approved [  ] Denied by Engineer  
 Contractor [Authorized Signature]

Its: \_\_\_\_\_ Reason (if denied): \_\_\_\_\_

Date: \_\_\_\_\_

**EJCDC C-941 CHANGE ORDER**

Owner: **City of Grand Ledge**  
 Engineer: **Wolverine Engineers & Surveyors, Inc**  
 Contractor: **Contractor Name**  
 Project: **City of Grand Ledge - River and Harrison Streets Improvements**  
 Contract Name: \_\_\_\_\_  
 Date Issued: \_\_\_\_\_

Owner's Project No.: \_\_\_\_\_  
 Engineer's Project No.: **24-0013**  
 Contractor's Project No.: \_\_\_\_\_  
 Effective Date of Change Order: \_\_\_\_\_

The Contract is modified as follows upon execution of this Change Order:

Description: \_\_\_\_\_

Attachments: \_\_\_\_\_

<b>Change in Contract Price</b>	<b>Change in Contract Times</b>
Original Contract Price: \$ _____	Original Contract Times: _____ Substantial Completion: _____ Ready for final payment: _____
[Increase] [Decrease] from previously approved Change Orders No. 1 to No. ____: \$ _____	[Increase] [Decrease] from previously approved Change Orders No.1 to No. ____: Substantial Completion: _____ Ready for final payment: _____
Contract Price prior to this Change Order: \$ _____	Contract Times prior to this Change Order: Substantial Completion: _____ Ready for final payment: _____
[Increase] [Decrease] this Change Order: \$ _____	[Increase] [Decrease] this Change Order: Substantial Completion: _____ Ready for final payment: _____
Contract Price incorporating this Change Order: \$ _____	Contract Times with all approved Change Orders: Substantial Completion: _____ Ready for final payment: _____
Recommended by Engineer (if required) By: _____ Title: _____ Date: _____	Accepted by Contractor By: _____ Title: _____ Date: _____
Authorized by Owner By: _____ Title: _____	Approved by Funding Agency (if applicable) By: _____ Title: _____

Date: _____	Date: _____
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**EJCDC C-942 FIELD ORDER**

Owner: **City of Grand Ledge**  
Engineer: **Wolverine Engineers & Surveyors, Inc**  
Contractor: **Contractor Name**  
Project: **City of Grand Ledge - River and Harrison Streets Improvements**  
Contract Name: \_\_\_\_\_  
Date Issued: \_\_\_\_\_

Owner's Project No.: \_\_\_\_\_  
Engineer's Project No.: **24-0013**  
Contractor's Project No.: \_\_\_\_\_  
Effective Date of Field Order: \_\_\_\_\_

Contractor is hereby directed to promptly perform the Work described in this Field Order, issued in accordance with Paragraph **11.04 of the 00-7001 - EJCDC C-700 STANDARD GENERAL CONDITIONS OF THE CONSTRUCTION CONTRACT**, for minor changes in the Work without changes in Contract Price or Contract Times. If Contractor considers that a change in Contract Price or Contract Times is required, submit a Change Proposal before proceeding with this Work.

Reference:

Specification Section(s): \_\_\_\_\_

Drawing(s) / Details (s): \_\_\_\_\_

Description:

\_\_\_\_\_

Attachments:

\_\_\_\_\_

**Issued by Engineer**

By: \_\_\_\_\_

Title: \_\_\_\_\_  
Date: \_\_\_\_\_

CITY OF GRAND LEDGE  
GENERAL NOTES

**UTILITIES**

**MISS DIG/UNDERGROUND UTILITY NOTIFICATION**

For the protection of underground utilities and in conformance with Public Act 174 of 2013, the Contractor must contact MISS DIG System, Inc. by phone at 811 or 800-482-7171 or via the web at either [elocate.missdig.org](http://elocate.missdig.org) for single address or [rte.missdig.org](http://rte.missdig.org), a minimum of 3 business days prior to excavating, excluding weekends and holidays.

**OUT OF SERVICE UTILITIES**

If plan information indicates an existing underground utility is or will be out of service within the limits of this contract, the Contractor is cautioned to treat such a line as if it were still in service and notify "Miss Dig" when working in the area of the out of service facility.

**EXISTING WATER MAINS AND SEWERS**

The Contractor will be responsible for any damage to properly identified existing water mains and/or existing sewers during the construction of this project.

**ROW / REAL ESTATE**

**PROPERTY OWNERS**

Property owners names, where shown, are for information only, and their accuracy is not guaranteed.

**MARKETABLE TIMBER**

Marketable timber must be made available to the property owner in accordance with subsection 201.03 of the *Standard Specifications for Construction*.

**SURVEY**

**ADJUSTING MONUMENT BOXES**

All government corners on this project must be preserved, whether shown or not. It may be necessary to place or adjust monument boxes, as required.

**DETAILED GRADES**

**GRADES FOR INTERSECTIONS**

All intersections are to be considered as complete units and their grades determined before construction is started.

**UNSIGNALIZED SIDE ROAD TO TRUNK LINE INTERSECTIONS:**

The normal edge of pavement grade of the proposed trunk line adjacent to the side road intersection shall be carried across the intersection. The side road approach grade and crown shall be established to provide for drainage.

### **SIDEWALK AND SIDEWALK RAMP GRADES**

All sidewalk and sidewalk ramp grades shall be constructed according to MDOT Standard Plan R-28 Series and as shown on the plans. Upon request by the Contractor, the Engineer will work with the Contractor to verify grades during construction of the sidewalk and sidewalk ramps.

## **EARTHWORK**

### **SLOPES**

Class A slopes shall be constructed on this project.

### **EARTH DISTURBANCE LIMITS**

The earth disturbance limit for this project will be limited to 10' beyond the slope stake line or to the ROW line whichever is less for all areas except for wetland areas. For areas adjacent to wetlands, the earth disturbance limit will be limited to the slope stake line. Restoration measures have been included in this set of plans for the approved areas of disturbance. The Contractor shall submit an earth change plan for any work beyond the approved limits to the Engineer to review for approval prior to the disturbance. All costs for obtaining and executing an approved earth change plan, including restoration, shall be at the Contractor's expense.

### **SOIL EROSION MEASURES**

Appropriate soil erosion and sedimentation control measures shall be in place prior to earth-disturbing activities. Place turf establishment items as soon as possible on potential erodible slopes as directed by the Engineer. Critical ditch grades shall be protected with either sod or seed/mulch or mulch blanket as directed by the Engineer.

## **BASES**

### **AGGREGATE BASE**

Aggregate bases shall be 21AA or 22A, unless otherwise specified.

## **DRAINAGE**

### **CULVERT EXTENSIONS**

The extension of existing culverts on this project may require extra work to obtain a tight seal at the joint connecting new culvert pipe to existing culvert pipe. The joint between the existing and new pipes shall be constructed according to the *Standard Specifications for Construction*. Any extra work required to obtain tight joints will not be paid for separately, but will be included in compensation for extending culverts.

## **ILLCIT CONNECTIONS TO STORM WATER SYSTEM**

Connections to existing storm conveyance systems not shown on the plans must be reconnected with minimal interruption in service. Size, type and location by station and offset and any suspect illicit discharge observed shall be reported to the Engineer prior to reconnecting. Contractor shall proceed as directed by the Engineer.

## **TEMPORARY BULKHEADS**

Temporary bulkheads may be required for the part width construction of the culverts and sewers. All cost associated with the temporary bulkheads are included in the item of the pipe.

## **PAVEMENT**

### **PAVEMENT AND HMA SURFACE REMOVAL QUANTITIES**

Pavement and HMA Surface removal as shown on the plans will be at the discretion of the Engineer. If in his/her judgment, areas of pavement may be left in place, or additional areas added to provide the proper cross-section and base. Changes will be made in the quantities.

### **SOIL BORINGS AND/OR PAVEMENT CORES**

The soil boring logs and/or pavement cores represent point information. No inference should be made that subsurface or pavement conditions are the same at other locations.

### **CONCRETE**

The type of concrete to be used on this project for the pavement repairs is Type P-NC.

## **LANDSCAPING**

Existing vegetation shall not be damaged during construction operations, per the *Standard Specifications for Construction*.

Storage of equipment and materials will be restricted to areas designated by the Engineer. No equipment is permitted within the drip line of existing trees to remain.

Branches of all trees to be saved shall not be removed, or damaged by construction equipment. If removal of lower branches is necessary, contact the municipality's Arborist for proper methods.

Do not trench within the drip line of existing trees to remain unless specifically approved by the Engineer.

Promptly restore any property damage at no expense to the City of Grand Ledge.

All raw fill or cut slopes will be covered with slope restoration according to the special provision and time limitations specified in subsection 816.04 of the *Standard*

*Specifications for Construction.*

All excavated material will become the property of the Contractor. Any excavated material not used on the project will be removed from the site and disposed of in accordance with section subsection 205.03.P. of the *Standard Specifications for Construction* and any applicable state and/or local ordinances.

Protect existing sidewalks from damage.

Plant material, soil, fertilizer and mulch will be inspected/approved by the Engineer prior to installation. Plant inspection may occur at the nursery source or when plants arrive on site.

Entire planting bed will be mulched with 5-6" of shredded hardwood bark mulch and paid for as \_\_\_\_\_.

Remove unacceptable plants fall inspection. Remove entire plant (including root ball) and dispose of offsite. Restore planting hole to existing conditions according to subsection 107.7 and section 816 of the *Standard Specifications for Construction*.

Tree and shrub taking will be completed by INSERT DATE.

Final staking may be adjusted to avoid conflicts with utilities.

**SIGNS**

**GENERAL**

All signs shall be installed, removed and/or salvaged according to the current edition of the Michigan Manual on Uniform Traffic Control Devices and the current edition of the *Standard Specifications for Construction*.

All signs are to be retained unless otherwise directed by the Engineer.

**EXISTING SIGN RELOCATION**

Salvage and reset any permanent signs requiring relocation due to Contractor operations at locations designated by the Engineer. Signs and posts damaged during the removal and storage operations shall be replaced with new signs and posts. The cost of this work shall be borne by the Contractor.

**PLAN SCALE**

The final plans submitted with the proposal are not to scale. Where proposed on plan sheets, the signs and structures shall be fabricated in accordance to Typical Plans, Standards, and/or Details at locations described.

**SIGN INSTALLATION**

When attaching signs to supports, tighten the nut, not the bolt head.

Nylon washers shall be placed between the steel washer and the sign face sheeting. The nylon washers are to be considered part of the attaching devices and hardware.

Nylon washers shall have a 3/8 inch inner diameter, a 7/8 inch outer diameter and a 1/16 inch thickness.

**EXISTING STREET SIGNS**

All traffic street signs such as "no parking", "no standing", etc. must be transferred from old std. or pole to new std. or pole at same location or in close proximity by the Contractor.

**HAND PATCHING**

**Grand, Bay, Southwest & University**

The mix used for Hand Patching will be HMA, 5E10 with binder Type PG 64-28. Application rate is variable. Bond coat to be applied at 0.05-0.15 gallons per square yard.

**PROJECT SPECIFIC NOTES**

\_\_\_\_\_

**CITY OF GRAND LEDGE  
PROGRESS CLAUSE**

The Owner anticipates that construction can begin once all requirements of the Notice of Award have been satisfied.

In no case shall any work be commenced prior to receipt of formal Notice to Proceed issued by the Owner.

The Contractor will be required to present a detailed Progress Schedule as required in **Paragraph 2.03 of Section 00-7001 - EJCDC C-700 STANDARD GENERAL CONDITIONS OF THE CONSTRUCTION CONTRACT**. The Contractor shall prepare and submit a complete, detailed, and signed [MDOT Form 1130](#), Progress Schedule, at least 7 days prior to the preconstruction meeting.

The Progress Schedule shall include, at a minimum, the controlling work items for the completion of the project, as well as the planned dates or work days that these work items will be controlling operations. All contract dates including open to traffic, project completion, interim completion, substantial completion and any other controlling dates in the contract, must be included in the Progress Schedule. The Progress Schedule shall also include the following (submit additional pages if necessary):

1. The proposed phased order of construction.
2. The proposed lane closures intended for work within each phase. All business drives shall remain open to traffic during the project.
3. If the Bidding Documents specify other controlling dates, these shall also be included in the Progress Schedule

Liquidated Damages shall be assessed in accordance with Paragraph 4.03 of Section **00-5200 - EJCDC C-520 AGREEMENT BETWEEN OWNER AND CONTRACTOR FOR CONSTRUCTION CONTRACT (STIPULATED PRICE)**.

**Milestone Dates**

4. Start work on the date identified in Section **00-5500 - EJCDC C-550 NOTICE TO PROCEED**.
5. The Contractor is expected to mobilize enough personnel and equipment to complete the project within the dates provided below. Begin the work within 7 days after the seasonal weight restrictions are lifted in the area.
6. **Substantial Completion**

In service and open to traffic by November 1, 2024.

**7. Final Completion**

- A. Project complete and ready for final payment by November 15, 2024.

After award and prior to the start of Work, the Contractor must attend a preconstruction meeting with the Engineer. The Engineer will determine the day, time and place for the

preconstruction meeting. The named subcontractor(s) for Designated and Specialty Items (if such items are designated in Article 11 of Section **00-2000 - EJCDC C-200 INSTRUCTIONS TO BIDDERS FOR CONSTRUCTION CONTRACT**) which materially affect the schedule, shall also be present at the scheduled meeting and they will be required to sign the Progress Schedule to indicate their approval of the scheduled dates of work set forth in the Progress Schedule.

Engineer will schedule and conduct progress meetings, when deemed necessary by the Engineer and Owner, that will be held with the City of Grand Ledge, other affected local governing agencies, utility companies, businesses, homeowners, and Contractor to discuss local concerns. Contractor attendance at these meetings is mandatory.

#### Hours of Work

The Contractor, by City of Grand Ledge Ordinance, is required to execute work done under this Contract only between the hours of 7:00 A.M. and 7:00 P.M., Monday through Saturday. No construction equipment shall be started or operated outside of these hours except to save property or life or as specifically authorized by the Engineer. All requests to work during off-hours shall be submitted to the Engineer for approval a minimum of two business days prior to beginning the Work.

#### Holiday Schedule

Contractor shall cease construction operations during the holiday periods found at the following link: [MDOT Holiday Restrictions](#).

CITY OF GRAND LEDGE  
**ROAD AND STREET MAINTENANCE AND ACCESS CLAUSE**

- a. **Description.** The City of Grand Ledge - River and Harrison Streets Improvements project involves maintaining the construction area and adjacent roads in a condition acceptable to the City of Grand Ledge and other affected local governing agencies and maintaining access to properties in the Construction Influence Area.
- b. **Road Maintenance:**
1. Maintain all roads where construction trucking takes place under this Contract at all times.
  2. Provide adequate and suitable street sweeper as required in 12SP-107C-01 - SWEEPING and other road maintenance equipment.
  3. Provide dust control measures for all roads where Work has been completed or is ongoing and for all roads utilized as detour routes during construction.
    - A. Control dust by adding either granular or liquid chloride or other approved materials in a sufficient amount to control the dust.
    - B. Where extreme dry conditions exist, the Engineer may also require water to be added to the road surface.
    - C. If Contractor fails to control the dust from construction activities or clean adjacent roads within a reasonable period of time after a request from the Owner / Engineer , the Owner will hire this to be completed and deduct the cost from the next Application for Payment and may stop the Work until such time as all roads are properly maintained.
  4. Prevent spillage of materials or mud tracking on roads where hauling or trucking takes place.
  5. Immediately clean up any accidental spillage or tracking shall be as directed by the Engineer .
  6. A construction procedure in which the roads are continuously cleaned up on a block-by-block basis is an important part of this project. Clean up each block of constructed improvements and secure permission from the Engineer before beginning construction on each new block of the project.
  7. Provide temporary trench cover where it becomes necessary to remove any existing surfacing or pavement on all trenches across traffic lanes not closed to traffic.
    - A. Minimum requirements for temporary trench cover shall be 6 inches of 21AA crushed aggregate compacted to not less than 95% of the maximum dry density and/or steel road plates.
    - B. Maintain temporary trench cover until permanent trench cover is placed.
- c. **Maintaining Access:**

1. Cooperate in every respect with the local Fire Department, Police Department, DPW, MDOT, County Road Commission, and the Engineer during construction.
2. Conduct operations at all times to provide ready access by emergency vehicles to residences and businesses abutting the construction areas.
3. Make every attempt to provide vehicular access to homes and businesses during construction.
  - A. Coordinate short term interruptions to access with the Engineer and affected property owners.
  - B. At the end of each work day, grade and clean up the roadway and all private driveways to provide automobile access.
  - C. During placement of driveways, cooperate with property owners to accommodate alternate parking arrangements.
4. Maintain safe traffic conditions for vehicles and pedestrians at all times.
5. Coordinate operations with the local governing agencies and emergency services having jurisdiction to provide advance notice of the temporary closing of all roads and streets, lane closures, and miscellaneous construction activities affecting vehicle access.
6. Furnish, install and maintain traffic control devices in accordance with Section **01-0004 - MAINTAINING TRAFFIC**.
  - A. Do not begin on any phase of the project until proper signing has been placed in accordance with the project manual.
7. Provide 24 hour maintenance of all traffic safety equipment and provide telephone numbers of at least two persons for contact in case of emergency.
8. Do not close roads to traffic without prior approval from the Engineer and notification to all property owners and allowance of sufficient time for evacuation.

CITY OF GRAND LEDGE  
COORDINATION CLAUSE

- a. **Description.** The **City of Grand Ledge - River and Harrison Streets Improvements** project involves coordinating work activities with the City of Grand Ledge, County Road Commission, County Drain Commissioner, utility companies, businesses, homeowners, and other contractors working on contracts along the project route. The project also involves maintaining utility and refuse disposal services to properties affected by this project.

The Contractor shall be responsible for the following:

1. Maintaining access to local business, schools, construction traffic, and emergency vehicles within the Construction Influence Area (CIA) and adjoining neighborhoods.
2. Working with local businesses to minimize disruption of daily business activities.
3. Maintaining utility and refuse disposal services to properties affected by this project.
4. Conducting operations so as to cooperate with and interfere as little as possible with activities of other contractors, the Owner, utilities, or public authorities on or near the project, and as directed by the Engineer.

The Contractor shall coordinate his operations with contractors performing work on other projects within, or adjacent to, the Construction Influence Area (CIA) to avoid conflicts in maintaining traffic, construction signing, and progression of construction activities.

These projects include, but are not limited to:

**A. Grand Renovations for Downtown Grand Ledge**

The coordination of this work shall be the responsibility of the Contractor. There will be no payment made for coordinating nor additional compensation paid to the Contractor for this effort and all labor, material and equipment associated with this effort will be included in other contract pay items.

CITY OF GRAND LEDGE

SPECIAL PROVISION  
FOR  
**MAINTAINING TRAFFIC**

WESI:CN

1 of 9

APPR:JAL:1-5-22

- a. **Description.** This Work shall consist of furnishing, installing, operating, maintaining, relocating, and removing traffic control devices described in section 812 of the *Standard Specifications for Construction* as specified herein and as shown on the plans.
- b. **General.**
1. Conduct all work during daytime hours only and in accordance with the City of Grand Ledge ordinances and permit requirements. See Section **01-0001 - PROGRESS CLAUSE** for general work hour restrictions and additional date restrictions regarding special events and holidays.
  2. Maintain traffic throughout the project in accordance with the latest standard specifications, any typicals or supplemental specifications in the contract, and as described on the plans or as necessary to perform the Work.
  3. Coordinate Work and perform routine maintenance as described in subsection 104.07.C of the *Standard Specifications for Construction*.
  4. Coordinate Work with other contractors performing work within the construction work zone or adjoining areas to avoid conflicts in the maintenance of traffic, construction signing, and to provide for the orderly progress of Work.
  5. Anticipate project coordination and as needed temporary traffic control revisions for the Work to be completed under this contract, in conjunction with the potential for multiple contractors working on this project.
  6. Develop and submit to the Engineer a Work Zone Traffic Control Plan (WZTCP) per subsection 104.11.B of the *Standard Specifications for Construction*.
    - A. Submit the WZTCP prior to or at the preconstruction meeting.
    - B. The Engineer will have 7 calendar days to review the WZTCP for approval or provide comments for revisions required to obtain approval.
    - C. At a minimum, the WZTCP must include the proposed ingress/egress locations for construction equipment and vehicles, traffic control devices that will be utilized to warn the motoring public of ingress/egress locations, and measures that will be taken to ensure compliance with the WZTCP.
    - D. Access for construction vehicles between the travel lanes and work areas will be restricted to specific locations (this includes the workmen's private vehicles). The number of access points and their locations will require the prior approval of the Engineer.

- E. Ensure that the WZTCP minimizes conflicts between construction vehicles and motorists and maintains overall safety and mobility within the work zone.
- F. No work may begin prior to approval of the WZTCP. Additional time required to obtain an approved WZTCP will not be cause for delay or impact claims.
- G. All costs associated with obtaining an approved WZTCP, providing and executing all parts of the approved WZTCP including required traffic control devices, or resolving an incomplete or unacceptable WZTCP will be borne by the Contractor.
- H. No full or partial payments will be made for minor traffic devices until the Contractor's WZTCP is approved.

**c. Traffic General.**

1. For any lane open to traffic, provide a minimum lane width of 11 feet with 2 feet of shy distance on both sides unless identified otherwise on plans.
2. Do not close lanes or utilize traffic regulation sequences where work can be accomplished with a shoulder closure.
3. Do not occupy any part of the active traffic lane with personnel or equipment when utilizing a shoulder closure.
4. Place lane closures and traffic regulation operations only in areas as shown on the plans or approved by the local maintaining agency.
5. Prior to shifting traffic onto shoulders or opening any lanes/shoulders, remove, by sweeping, all accumulated debris that has collected within the shoulder and/or within the closed lane/shoulder.
6. Repair, at no expense to the Owner, any damage done to staging area, signs, or any road surface due to the Contractor's operations.
7. Notify and coordinate with emergency services, transit agencies, law enforcement and schools prior to any lane closures, detours or major traffic shifts. All costs associated with these coordination efforts will be considered included in the pay item "Minor Traf Devices".
8. All costs associated with maintaining traffic control devices during/post a storm event are considered included in the "Operated" item for the traffic control devices.
9. Remove all temporary traffic control devices from the right-of-way during any shut down periods unless needed for directly maintaining or channelizing traffic. No additional payment will be made for removal and/or redeployment of these devices except for in the case of an approved extension of time.
10. Cover or remove construction signing that refers to work zone speed when work at a location is planned to be inactive for a period greater than 2 days or as directed by the Engineer.

11. Payment for placement, maintaining, removal and or collapsing of traffic control devices outside of the specified hours of operation shall be included in the "Minor Traffic Devices" pay item.

d. **Permits.**

1. Obtain all necessary permits from the Owner and other local maintaining agencies within areas of other local jurisdiction, including noise/dust ordinance waivers when required, prior to placing construction signing on local roads.
2. The Owner will reimburse permit costs only if the Schedule of Items includes a pay item for "Permits".
3. Adhere to all requirements made by local maintaining agencies regarding placement of traffic control devices prior to closing lanes on roadways not under Owner jurisdiction.
4. The Contractor is responsible for providing the required information to obtain final approved permit(s).
5. The Contractor shall comply with permit requirements for the installation of traffic control devices throughout miscellaneous locations as required for construction, as identified in the plans or as required by the Engineer.
6. Notify and secure approval from the Owner a minimum of 3 working days prior to the implementation of any detours, road closures, lane closures, or major traffic shifts.

e. **Construction Influence Area.**

1. The Construction Influence Area (CIA) shall consist of the width of the public right-of-way from P.O.B. to P.O.E.
2. The CIA shall also include the affected portions of the driveways and roadways along, adjacent to, and contiguous with this section of roadway where the Contractor's traffic control devices, pavement markings and signs are used including, but not limited to, intersecting roads adjacent to the work zone for a distance of approximately 1/4 mile in advance of the work zone or as far as the construction or detour signing extends.
3. The Contractor shall only work outside the existing right-of-way in locations identified on the plans or as approved in writing by the Engineer.

f. **Traffic Restrictions.**

1. Unless otherwise specified herein, temporary lane and shoulder closures shall conform to the *Standard Specifications for Construction* and the *Michigan Manual on Uniform Traffic Control Devices* (MMUTCD).
2. Use the following traffic maintenance practices: M0020a, WZD-100-A and WZD-125-E and any others shown in Section **00-0110 - TABLE OF CONTENTS** or required for completion of the Work.
3. Maintain access to thru traffic.

4. Upon approval of the WZTCP, complete and submit the [MDOT Form 0561 - Lane Closure Notification/Request](#) to the Engineer for approval prior to the actual lane closure date.
  - A. Submit the lane closure request 7 calendar days in advance of the lane closure for approval. This includes all shifts/shoulder/lane closures as stated in the project manual or plans or any new lane closure requests submitted by the Contractor.
  - B. The Engineer will have 4 calendar days to review the lane closure request for approval or provide comments for revisions required to obtain approval. Do not implement a lane closure prior to approval by the Engineer.
5. Once work is initiated that includes any lane restriction, continue the Work daily until completed. A lack of work activity for more than 3 days will require the removal and replacement of lane closures at the Contractor's expense.
6. When a lane is closed, place channelizing devices at cross streets and major drives to form a radius that clearly defines the approaches to the through and turning traffic.

**g. Road Closures.**

1. Unless otherwise specified herein, temporary road closures shall conform to the Standard Specifications for Construction and the Michigan Manual on Uniform Traffic Control Devices (MMUTCD).
2. Use the following traffic maintenance practices: M0020a, WZD-100-A and WZD-125-E and any others shown in Section **00-0110 - TABLE OF CONTENTS** or required for completion of the Work.
3. Maintain access to local traffic.
4. Notify the Engineer in advance of isolated shoulder or lane closures for related construction work.

**h. Stage Construction.**

1. No staging changes will be allowed without prior written approval from the Engineer. Work can be completed in each stage simultaneously, except as otherwise directed by the Engineer.
2. Construction within each Stage shall be limited to 500 feet of construction along any route being constructed at the same time.
3. Multiple lane closures along the same roadway will not be permitted at any time.

**i. Traffic Regulator Control.**

1. Maintain two-way traffic at all times using traffic regulator control as permitted by the local maintaining agency or as directed by the Engineer.
2. A traffic regulator sequence is allowed to cover a maximum closure length of 2 miles.

3. Place the arrow panel, signs and channelizing taper for the traffic regulator operation at locations approved by the Engineer for adequate visibility by oncoming traffic.
4. Crossroads must remain open to traffic at all times.
5. Use intermediate traffic regulators at each intersection approach and commercial driveways within the closure limits, as directed by the Engineer.
6. Use traffic regulator control as directed by the Engineer for cross street traffic while paving through intersections.
7. Follow the [\*Michigan Traffic Regulator's Instruction Manual\*](#) for operations at signalized intersections.
  - A. Contact the Owner's electrician or applicable maintaining agency prior to work on traffic signals.
  - B. Only the Owner's electrician or applicable maintaining agency may make changes to the traffic signal controllers.

**j. Pedestrian or Non-Motorized Facilities.**

1. Maintain pedestrian access during construction unless the plans call for a pedestrian traffic detour. If needed, provide traffic regulators and flagging for pedestrian safety.
2. Maintain all facilities in accordance with *The Americans with Disability Act (ADA)* requirements. Provide facilities equivalent to or better than the route a person would have encountered prior to construction activities.
3. Submit an "ADA Work Plan" for sidewalk and ADA ramp construction prior to any sidewalk ramp closures or removals. The work plan must address pedestrian access and detours. Plan will allow a ramp closure up to (96) hours. The Engineer will have 7 calendar days to review the plan for approval or provide comments for revisions required to obtain approval. Do not proceed with the work until the Engineer has approved the plan.
4. Close and detour any sidewalk ramps and crosswalk areas to pedestrian traffic that are impacted by the work. Cover pedestrian signal heads when the crosswalk or ramp is affected.
5. Keep sidewalk areas clear of any equipment or materials at all times the sidewalks are open to pedestrian traffic.

**k. Detour Routes.**

1. Detour routes, when necessary, shall be in-place and maintained throughout the duration of the project to facilitate the necessary Work.
2. For the safety and protection of through and local traffic, furnish, erect and maintain traffic control devices as required by the *Michigan Manual on Uniform Traffic Control Devices*. This includes advance warning signs, barricades and channeling devices at the

intersecting roads on which traffic is to be maintained.

3. Remove the traffic control devices in a prompt, safe and orderly manner only upon completion of the project or as directed by the Engineer
4. All areas which are disturbed through the Contractor 's activities or traffic maintenance operations shall be restored to their original condition at the Contractor 's expense.
5. When the plans call for a pedestrian traffic detour or as necessary to safely construct the project, close miscellaneous sidewalk locations. This shall be included in the cost of related items of work and will not be paid for separately.

**l. Earthwork and Excavation.**

1. Protect the work area at the end of each day.
2. Close all open access points on the project to traffic with Type III barricades or other devices approved by the Engineer.
3. Delineate any shoulder under construction that is not in a finished condition left overnight.
4. Restore undercuts or excavations adjacent to active traffic lanes to no steeper than a 1 on 4 slope from the edge of the roadway at the end of each work day. If this condition is not met, provide a nighttime closure.
5. Use protective fencing to protect open excavations within the work zone during nonworking hours.
6. Provide access for emergency vehicles at all times.

**m. Hot Mix Asphalt (HMA) Work.**

1. Restore HMA surfaces immediately following road crossings unless otherwise approved by the local maintaining agency.
2. Resurface all HMA milled areas within 24 hours of the HMA cold milling operation.
3. No traffic is allowed on the HMA milled surface, unless directed by the Engineer.

**n. Traffic Control Devices.**

1. All traffic control devices shall be in accordance with the *Standard Specifications for Construction* and the *Michigan Manual on Uniform Traffic Control Devices*.
2. Ensure traffic control devices meet the "acceptable" criteria as defined in the ATSSA publication entitled "*Quality Guidelines for Temporary Traffic Control Devices and Features*" at the time of initial deployment and after each major stage change.
3. The location and type of signing shall be in accordance with the traffic control details as indicated in the plans and specifications.

4. Sign placement as shown on the traffic control sheet(s) is for general reference only. Place all signs with adequate spacing per the identified distances for temporary traffic control devices per the *Michigan Manual on Uniform Traffic Control Devices* and *Maintaining Traffic Typical*s.
5. Place sign covers needed daily or short-term over existing regulatory, warning and construction signs that are not applicable during construction. Notify the Engineer a minimum of 3 working days in advance of erection or removal of covers on existing signs.
6. *General.*
  - A. During non-working periods, any work site with uncompleted work must have applicable advance signs and channelizing devices at specific locations at no additional cost to the Owner.
  - B. Notify the Engineer 24 hours in advance of when traffic control devices are being delivered to the project site to allow for initial inspection of devices to take place.
  - C. Remove from the project site all traffic control devices (including detour signing) no longer needed for a particular operation and equipment for construction within 14 calendar days of reopening the shoulder/lane/roadway.
7. *Channelizing Devices.*
  - A. Ensure all devices have sufficient ballast to prevent moving or tipping. If moving or tipping occurs, place additional ballast, as directed by the Engineer, at no additional cost to the Owner. No more than two ballasts are allowed on each channelizing device.
  - B. Do not use caution tape on this project unless required by the local maintaining agency. Channelizing device spacing must be 50' for tapers and 100' for tangents or tighter spacing as required or as directed by the Engineer.
8. *Temporary Signs.*
  - A. Fabricate, install, and remove temporary sign overlays on existing signs with the pay item for Sign, Type B, Temp, Prismatic, Furn. Attach the overlay in accordance with subsection 812.03.D.2 of the *Standard Specifications for Construction*.
9. *Portable Changeable Message Signs (PCMS's).*
  - A. Use PCMS's to warn traffic of upcoming and changing traffic control during the life of the project when specified or required.
  - B. Install PCMS's and make them operational a minimum of 7 calendar days prior to the start of work, unless otherwise directed by the Engineer.
  - C. Messages displayed on the PCMS's must conform to MDOT's policy on PCMS's.

- D. Do not leave PCMS's with a blank screen within the clear zone of any roadway at any time.
- E. Remove the PCMS or display flashing dots in each corner of the screen when there is no message to display.
- F. Update the PCMS messages at the end of each work period to reflect current traffic lane restrictions.

10. *Traffic Signals.*

- A. Prior to each stage, cover any signal indications or overhead signing in conflict with traffic movements during that stage.
- B. Methods of covering signs and signal indications require approval by the Engineer before placement.

11. *Pavement Marking.*

- A. Complete temporary pavement markings in each stage prior to shifting traffic as directed by the Engineer.
- B. Replace all existing pavement markings that are removed for traffic control or obliterated during construction.

o. **Measurement and Payment.** The completed work, as described, will be measured and paid for at the contract unit price using the following pay item(s).

<b>Pay Item</b>	<b>Pay Unit</b>
Barricade, Type III, High Intensity, Double Sided, Lighted, Furn.....	Each
Barricade, Type III, High Intensity, Double Sided, Lighted, Oper.....	Each
Pedestrian Type II Barricade, Temp.....	Each
Pedestrian Type II Channelizer, Temp.....	Foot
Channelizing Device, 42 inch, Fluorescent, Furn.....	Each
Channelizing Device, 42 inch, Fluorescent, Furn.....	Each
Lighted Arrow, Type C, Furn.....	Each
Lighted Arrow, Type C, Oper.....	Each
Minor Traf Devices.....	Lump Sum
Plastic Drum, High Intensity, Furn.....	Each
Plastic Drum, High Intensity, Oper.....	Each

Sign Cover.....	Each
Sign Type B, Temp, Prismatic, Furn.....	Each
Sign Type B, Temp, Prismatic, Oper.....	Each
Traffic Regulator Control.....	Lump Sum

Traffic Regulator Control shall be performed as necessary.

The quantity estimates for maintaining traffic on this project are based on the suggested sequence of operations per the project plans and specifications. Payment for these devices shall be in accordance with section 812 of the *Standard Specifications for Construction* and any Supplemental Specifications and Special Provisions. Payment for quantities used to maintain traffic will be based on the maximum number of units required by the Engineer at any one time for the entire project. Any additional signing or maintaining of traffic devices required to expedite the construction shall be included in the pay item "Minor Traf Devices".

No additional payment will be made for the following activities:

1. Transporting traffic control items from site to site.
2. Providing sufficient vehicles and staff to make changes as-needed on site during work.
3. Providing sufficient vehicles and staff to remove closures from the roadway.
4. Additional signing or maintaining traffic devices required to expedite the construction will be borne by the Contractor.

CITY OF GRAND LEDGE  
NOTICE TO BIDDERS  
FOR  
**UTILITY COORDINATION**

The Contractor must cooperate and coordinate construction activities with the owners of utilities as stated in subsection 104.08 of the *Standard Specifications for Construction*. In addition, for the protection of underground utilities, the Contractor must follow the requirements in subsection 107.12 of the *Standard Specifications for Construction* and Public Act 174 of 2013. The Contractor shall contact MISS DIG System, Inc. by phone at 811 or 800-482-7171 or via the web at either [elocate.missdig.org](http://elocate.missdig.org) for single address or [rte.missdig.org](http://rte.missdig.org), a minimum of 3 business days prior to excavating, excluding weekends and holidays. Contractor delay claims, resulting from a utility, will be determined based upon subsection 108.09 of the *Standard Specifications for Construction* only for utilities encountered that are not shown on the plans.

The owners of existing Public Utilities that are within grading structure limits will move them to locations designated by the Engineer or will remove them entirely from the road right-of-way. Owners of Public Utilities will not be required by the municipality to move additional poles or structures in order to facilitate the operation of construction equipment unless it is determined by the Engineer that such poles or structures constitute a hazard to the public or are extraordinarily dangerous to the Contractor's operation.

The existing utilities listed and shown on the plans represent the best available information available as obtained from surveys and from utility record maps.

Out of Service Utilities

If plan information indicates an existing underground utility is or will be out of service within the limits of this contract, the Contractor is cautioned to treat such a line as if it were still in service and notify "Miss Dig" when working in the area of the out of service facility.

Existing Water Mains and Sewers

The Contractor will be responsible for any damage to properly identified existing water mains and/or existing sewers during the construction of this project.

The Contractor must notify the Owner at least 48 hours before he intends to cross an existing municipal utility (main or service lead). The Contractor must take proper precautions to protect the utility. Should a utility be damaged, the Contractor must immediately repair.

Existing utilities which are intercepted by a new utility shall be connected to the new utility respectively when required by the Engineer.

Unless otherwise indicated, the Contractor must replace any disturbed storm or sanitary sewer at a grade to be established by the Engineer such that sufficient clearance will be provided.

The Contractor will receive no extra compensation for repair or replacement of utilities encountered, whether shown on the plans or not, connections to new utilities, or for

relaying at a new grade and/or line where necessary, except where specifically noted otherwise in the Contract Documents.

Existing Gas, Electric, Phone, Cable, and Other Public Utilities

Contractor must make all necessary arrangements with the utility owner for supporting existing utilities which may interfere with performing the work.

Drawings have been provided to the utility owners. If it is discovered that a utility interferes with the Work, Contractor must notify Engineer and utility owner immediately to discuss options. Contractor must provide cooperation in adjusting any interference at no expense to Owner except in specific instances when, in the judgment of Engineer, changes result in extra costs to Contractor.

Where water, sewer, gas, telephone, cable TV, or any other public or private utilities are encountered, Contractor must provide adequate protection for them and he will be held responsible for any damages to such utilities arising from his operations.

When it is apparent that construction operations may endanger the foundation of any utility conduit, or the support of any structure, Contractor must notify the utility owner of this possibility and he shall take such steps as may be required to provide temporary bracing or support of conduits or structures.

Contractor must ensure that utility poles which are endangered by construction are properly supported and shall cooperate with the utility owner in avoiding damage to lines and poles.

When the utility owner elects to make repairs to damaged conduit or other structures, Contractor must cooperate to the fullest extent with the utility owner and he shall see that his operations interfere as little as possible with those operations.

When it is necessary in order to perform the Work, that a utility pole be moved to a new location, or moved and replaced after construction, Contractor must arrange for the moving of such poles and the lines.

Existing Private Utilities Known by Owner

Private utilities within the right of way shall be properly located by the property owner.

Owner will endeavor to issue notice to property owners, informing them of this requirement prior to construction.

Contractor will not be responsible for damage to unmarked private utilities

CITY OF GRAND LEDGE  
SPECIAL PROVISION  
FOR  
**CONSTRUCTION NOTIFICATION**

WESI:CN

1 of 2

APPR:JAL:2-17-23

- a. **Description.** This work consists of providing all labor, equipment and materials necessary for notifying affected property owners in writing at least 24 hours in advance of any disruption in water or sanitary sewer utility service, driveway closing or closing of any street and notifying property owners in writing at least 14 calendar days prior to the start of the work performed in areas of sprinkler systems, landscaping, or fencing. Provide written notification with the following information:

1. Date of notification to affected property owners.
2. Notification regarding sprinkler systems, landscaping, or fencing in accordance with the following:

Property owners must be notified (in writing with a copy sent to the Engineer) by the Contractor at least 14 calendar days in advance of any work to be done that construction may affect sprinkler systems, landscaping, or fencing within the right-of-way and/or easement/consent areas. If the property owner fails to relocate the lawn sprinkler system prior to the Contractor beginning work, and if the Contractor cuts the system during the construction, the Contractor must cap the system pipe and witness the location of the cap with a wooden stake for the property owners use. The Contractor will place the salvaged sprinkler heads on the property owners property. If the property owner fails to relocate the landscaping or fencing prior to the Contractor beginning work, the Contractor must carefully salvage the items and stockpile them on the property owners property. Any other modification to the lawn sprinkler systems, landscaping, or fencing, is the responsibility of the property owner and is not part of this contract.

3. The nature and duration of the utility disruption or closure.
4. The name, address and telephone numbers of the Contractor, the Engineer, and appropriate municipal departments.

Construction will not begin for work where written notification to property owners is not completed and will be considered ineligible for claim for contract extension for failure to fulfill the above requirements.

- b. **Materials.** Provide door hangers printed on 65 lb cardstock.
- c. **Construction.** Submit a notification plan (including proposed written notifications) to the Engineer prior to commencement of any work.

Place door hangers on the main entry to each home and commercial building.

WESI:CN

2 of 2

- d. **Measurement and Payment.** Property Owner Notification will not be paid for separately but will be included in the cost(s) of related items of work.

CITY OF GRAND LEDGE  
SPECIAL PROVISION  
FOR  
**MDOT STANDARD SPECIFICATIONS FOR CONSTRUCTION AND SPECIAL  
PROVISIONS**

WESI:CN

1 of 1

APPR:JAL:2-3-23

- a. This contract includes the MDOT Standard Specifications for Construction, Errata, and Special Provisions listed below. Contractor agrees that these standard specifications, errata, and special provisions are incorporated by reference into this Project Manual as if they were repeated in their entirety. The special provisions and current Errata will be uploaded to the bidding website and/or provided by the Engineer upon request. The Standard Specifications for Construction can be accessed by using the link at the bottom of this special provision and/or by using an internet search engine such as Google or Bing.
- b. **MDOT RECOMMENDED AND/OR PREVIOUSLY APPROVED SPECIAL PROVISIONS**  
[Link to MDOT Recommended and Previously Approved Special Provisions](#)
- c. **MDOT FREQUENTLY USED SPECIAL PROVISIONS (FUSP)**
- d. **MDOT STANDARD SPECIFICATIONS FOR CONSTRUCTION**  
[Link to MDOT 2020 Standard Specifications for Construction](#)  
20SS-001A-(Latest Edition) Errata to the 2020 Standard Specifications

CITY OF GRAND LEDGE  
SPECIAL PROVISION  
FOR  
**EROSION CONTROL, INLET PROTECTION, FABRIC DROP, MODIFIED**

WESI:CN

1 of 2

APPR:JAL:1-5-22

a. **Description.** This work consists of providing all labor, equipment and materials necessary for furnishing and installing acceptable alternatives to inlet protection devices (devices) listed in the *MDOT Soil Erosion and Sedimentation Control Manual*.

b. **Materials.** Provide materials conforming to subsection 916.04 of the *Standard Specifications for Construction* except as modified by the following section(s) of this Project Manual:

Inlet Protection Fabric Drop..... 09-0916

c. **Construction.** Provide, place, maintain, and remove inlet protection fabric drop devices according to subsection 208.03 of the *Standard Specifications for Construction*, procedures recommended by the manufacturer, and the following:

1. Ensure provided devices are sized appropriately for the drainage structures in which they will be installed.
2. Install fabric drops in existing catch basins prior to any removal operations or disturbing any soil and in proposed catch basins immediately after they are connected to the storm sewer.
3. Provide curb deflectors for all catch basins with curb openings.
4. Replace damaged fabric drops immediately at the Contractor's expense.
5. Dispose of collected material in accordance with subsection 205.03.P of the *Standard Specifications for Construction*.
6. Those devices that are no longer needed and have been removed may be reused elsewhere on the project as approved by the Engineer.
7. Remove fabric drops from existing structures and reinstall into new structures as structures are replaced.
8. Maintain until the HMA Top Course has been placed and all permanent vegetation has been established.

d. **Measurement and Payment.** The completed work, as described, will be measured and paid for at the contract unit price using the following pay item(s).

**Pay Item**

**Pay Unit**

Erosion Control, Inlet Protection, Fabric Drop, Modified.....Each

**Erosion Control, Inlet Protection, Fabric Drop, Modified** will be paid for as one each for each time the alternate device listed herein is installed, maintained, and removed at a separate location within the project limits.

The unit price for **Erosion Control, Inlet Protection, Fabric Drop, Modified**, includes all costs associated with furnishing and installing, maintaining, removing and replacing fabric drops, and properly disposing of collected material for the duration of the project.

CITY OF GRAND LEDGE  
SPECIAL PROVISION  
FOR  
**TEMPORARY EROSION AND SEDIMENT CONTROL**

WESI:CN

1 of 2

APPR:JAL:2-17-23

- a. **Description.** This work consists of providing all labor, equipment and materials necessary for the installation and maintenance of soil erosion control measures in accordance with section 208 of the *Standard Specifications for Construction, MDOT Standard Plan R-96 Series*, the plans, and this special provision.
- b. **Materials.** Provide materials conforming to section 916 of the *Standard Specifications for Construction* for soil erosion and sedimentation control measures.
- c. **Construction.** Install, maintain, and remove soil erosion and sedimentation control measures in accordance with subsection 208.03 of the *Standard Specifications for Construction, MDOT Standard Plan R-96 Series*, and the plans.

Performance Requirements

1. Comply with requirements of [EPA \(NPDES\)](#) for erosion and sedimentation control, as specified by the NPDES, for Phases I and II, and in compliance with requirements of Construction General Permit (CGP), whether the project is required by law to comply or not.
2. Comply with State of [Michigan NREPA](#) requirements.
3. Comply with requirements of Eaton County County Soil Erosion and Sedimentation Control Permit.
4. Provide a Stormwater Operator (SWO) certified in the State of Michigan to perform all required inspections and reporting including, but not limited to the following:
  - A. Make reviews at least once every 7 days, and within 24 hours after every precipitation event that results in runoff from the site and ensure the completion of any needed corrective actions. Maintain a log of the inspections and corrective actions on file and submit in accordance with Section **01-0104.01 - CONSTRUCTION DOCUMENT MANAGEMENT**. Submit reporting to the Engineer bi-weekly and retain a hard copy for a period of 3 years from the date of the inspection or corrective action.
  - B. Document the inspections and corrective actions onto the NPDES and Soil Erosion and Sedimentation Control Inspection Report ([MDOT Form 1126](#)).
5. Complete, or have completed, all corrective actions within 5 calendar days except those of an emergency nature required as a result of the NPDES inspection as indicated on Form 1126. Corrective actions of an emergency nature will be as determined by the Engineer and include sedimentation that occurs in streams, drainage structures, or

watercourses, or erosion that affects the support of the roadbed or the safety of the public. Emergency corrective actions will be noted as such on Form 1126 and must be completed in an acceptable manner within 24 hours.

Do not begin clearing, grading, or other work involving disturbance of ground surface cover until applicable permits have been obtained; furnish all documentation required to obtain applicable permits.

- 6. Obtain and pay for permits and provide security required by authority having jurisdiction in accordance with Paragraph 7.09 of Section **00-7001 - EJCDC C-700 STANDARD GENERAL CONDITIONS OF THE CONSTRUCTION CONTRACT.**
- 7. Owner will withhold payment to Contractor equivalent to all fines resulting from non-compliance with applicable regulations.

Submit report of each inspection; identify each preventive measure, indicate condition, and specify maintenance or repair required and accomplished.

- d. **Measurement and Payment.** The completed work, as described, will be measured and paid for at the contract unit price using the following pay item(s).

<b>Pay Item</b>	<b>Pay Unit</b>
Temporary Erosion and Sediment Control.....	Lump Sum

The unit price for **Temporary Erosion and Sediment Control** includes all costs associated with furnishing and installing erosion and sediment control measures not specifically called for in other pay items, providing a certified stormwater operator, preparing required reports, and paying permit fees.

CITY OF GRAND LEDGE

SPECIAL PROVISION  
FOR

**VIDEO INSPECTION OF STORM AND SANITARY SEWER MAINS AND LATERALS**

WESI:CN

1 of 2

APPR:JAL:2-17-23

- a. **Description.** This work consists of providing all labor, equipment and materials necessary for making a video record of the physical and structural conditions of sanitary and storm structures and piping prior to the beginning of any construction activities, and again prior to HMA wearing course placement. Ensure the video is professional quality, in color and provides a clear and accurate visual record of the facility conditions in accordance with the [National Association of Sewer Service Companies](#) (NASSCO) standards.
- b. **Materials.** None specified.
- c. **Construction.** Provide inspection video, data and reports in accordance with the requirements specified herein. Provide all video on portable hard drive as specified. Ensure all work conforms to NASSCO Pipeline Assessment Certification Program (PACP) coding conventions and all software used is PACP compliant. Provide an electronic database in PACP exported format as approved by the Owner.

Furnish two (2) copies of the pre-construction video(s) and log(s) to the Engineer at least seven (7) calendar days prior to placement of any materials or equipment in the vicinity of the sewers. Any portion of the video(s) determined by the Engineer to be unacceptable for the documentation of existing conditions must be re-inspected prior to the start of any construction activity. Bear all costs associated with the need to re-inspect.

Furnish two (2) copies of the post-construction video(s) and log(s) to the Engineer within seven (7) calendar days of the completion of all work in the vicinity of the sewers with the exception of HMA wearing course placement and slope restoration. Any portion of the video(s) determined by the Engineer to be unacceptable for the documentation of post-construction conditions must be re-inspected within five (5) calendar days. Bear all costs associated with the need to re-inspect.

Submit Environmental Systems Research Institute (ESRI) geodatabase files of televising and inspection records. Provide ESRI geodatabase files to the Engineer that include points along the mainline sewers indicating the location of factory taps, failed joints, or any other features where a PACP code is recoded as a part of the video inspection. Ensure the geodatabase files include the following information: manhole number, observation date, observation time, PACP code, PACP score, remarks or notes, name and certification number of the inspector, report sheet number, video number, and Owner's name and project location. Ensure pipe reports, screen shots or photos of the observations (factory taps, joints, and other features), and videos are hyperlinked to the features in the ESRI geodatabase files.

The Contractor is responsible for damage to the existing sewers caused by their operation. Costs to repair damage caused by the Contractor's operations, as identified by the Engineer in the video inspection records or otherwise, will be borne by the Contractor.

Conduct video inspection in accordance with subsection 402.03.J of the *Standard Specifications for Construction*, NASSCO requirements, and this special provision. Ensure work is completed when the sewer is clean, at a time approved by the Engineer to coincide with low flow rate periods, and is coordinated with the Public Works Department. Obtain approval from the Engineer for pumping, bypassing and other methods of flow control prior to starting work.

Use video equipment specifically designed for storm and sanitary sewer inspection and recording. Ensure video equipment is capable of pan, tilt and zoom to provide all-around views of sewers, viewing into lateral connections, and produces high-quality, color recordings with date/time stamp and digital annotation capabilities.

Inspect and record sewers, in either direction, at a rate not exceeding 30-feet per minute. Stop the camera to video all points of infiltration, cracked or crushed pipe, defective joints, misalignment of line and grade, service lateral connections, connecting pipes, and other areas of distress or interest to properly document the condition of the sewer. Ensure winches, cables, rewind, and other devices do not obstruct the view or interfere with proper documentation of the existing sewer. If the video equipment will not pass through an entire section in one direction, set up equipment to enter from the opposite direction. If the video equipment fails to pass through from the opposite direction due to structural obstructions, the inspection will be considered complete. Deploy a launchable camera from the mainline video equipment up each service lateral 100 feet or until the camera reaches an impass.

Ensure the video recording displays the date (month, day and year) and the time (hours, minutes and seconds) and is displayed in upper left hand corner of the frame. Ensure total sewer length and locations (to the tenth of a foot) of sewer defects is displayed on the upper right hand corner of the frame. Provide a continuous running inspection in which sound and video information is recorded of the pipe section from access point to access point using the manhole numbers provided on the plans.

Provide personnel who are trained and certified in the NASSCO PACP. Provide the Engineer with documentation of valid certification for all personnel prior to conducting the Work.

- d. **Measurement and Payment.** The completed work, as described, will be measured and paid for at the contract unit price using the following pay item:

<b>Pay Item</b>	<b>Pay Unit</b>
Video Taping Sewer and Culv Pipe, Modified.....	Foot

**Video Taping Sewer and Culv Pipe, Modified** will be measured in place from center to center of manholes.

The unit price for **Video Taping Sewer and Culv Pipe, Modified**, includes the cost of lateral launching leads and sewer bypass pumping if necessary.

CITY OF GRAND LEDGE

SPECIAL PROVISION  
FOR  
**TRENCHING**

WESI:CN

1 of 5

APPR:JAL:1-5-22

- a. **Description.** This work consists of providing all labor, equipment and materials necessary for installation of sanitary, storm, and water piping and appurtenances including removals, excavation, trenching or tunneling in earth and in rock, and the complete drainage of excavations in accordance with section 402 of the *Standard Specifications for Construction* and *MDOT Standard Plan R-83 Series*, except as modified in this special provision.
- b. **Materials.** Provide materials conforming to section 902 of the *Standard Specifications for Construction* and *MDOT Standard Plan R-83 Series*.
- c. **Construction.** Construct trenching according to subsection 402.03 of the *Standard Specifications for Construction* and the following:
  1. Remove existing drainage structures, culverts, sewers, water main, and water services in accordance with subsection 203.03 of the *Standard Specifications for Construction* with the following modification(s):
    - A. Drainage structure abandonment is not allowed unless specifically indicated on the plans and/or in the Schedule of Items as directed by Engineer.
    - B. Removal of existing pipe and/or structures, if required for installation of new pipe and/or structures, will be incidental to the cost for constructing new pipe and/or structures and no additional payment shall be allowed unless specifically provided for in the Schedule of Items.
  2. Remove miscellaneous structures and materials in accordance with section 204 of the *Standard Specifications for Construction* with the following modification(s):
    - A. Removals will be incidental to the project and no additional payment shall be allowed unless specifically provided for in the Schedule of Items.
  3. Include cost of all earthwork, backfilling, drainage and other Work described in this section in the amount bid per unit of utility construction unless otherwise indicated in the Schedule of Items.
  4. Classification of Excavation:
    - A. Earth, as a name for excavated material, includes all glacial deposit, whether cemented or not, except solid boulders one-half cubic yard or more in volume. It also includes all alluvial deposits and material of every kind that can be excavated with equal facility by the equipment and means used for other earth excavation in the Work.

- B. Rock, as a name for excavated material, includes pre-glacial solid ledge rock that can be removed most practically by blasting, barring, or wedging or by some other standard method of quarrying solid rock. It also includes boulders of one-half cubic yard or more in volume. It does not include fragile, friable, or disintegrated materials of any kind that can be excavated with equal facility by equipment and means used for earth excavation in this Work.

5. Limits of Excavation in Earth:

- A. Extend excavations for structures sufficiently beyond the limits of the structure to provide ample room for form construction and other construction methods to be followed.
- B. Where, through the Contractor's construction procedure, or because of poor existing ground conditions, it is impossible to maintain alignment and grade properly, excavate below grade and replace with stone in order to ensure that the pipe, when laid, will maintain the correct alignment and grade at no cost to the Owner.
- C. In excavating for utilities, finish the excavation at all times to the required grade for an adequate distance in advance of the completed utility. However, unless otherwise permitted by the Engineer:
  - (1) do not open more than 50 feet of trench at one time in advance of the utility;
  - (2) do not leave more than 150 lineal feet (urban areas) or 500 feet (rural areas) of trench incompletely backfilled. Make available the remainder of the area of trenching operations for safe vehicular and pedestrian traffic at all times;
  - (3) backfill excavated trenches in such a manner as to avoid large piles of surplus spoil.
- D. The length of road which may be occupied by the construction activities at any one time will be subject to the discretion of the Engineer and will be based on the requirements of use of the road by the public and must be in accordance with MDOT Maintenance of Traffic typicals. However, unless otherwise permitted by the Engineer,
  - (1) do not occupy more than 1,000 consecutive feet of road at one time.
  - (2) vehicular traffic through the road must not be entirely stopped.
- E. Temporarily store excavated materials along the trench in a manner that will not cause damage to trees, shrubs, fences or other property nor that will endanger the bank of a trench by imposing too great a load thereon.

6. Disposal of Water and Sewage:

- A. All methods and procedures for soil erosion and sediment control must meet the AHJ and EGLE standards for construction.

- B. Remove by pumping, bailing, or other acceptable method all water which may accumulate or be found in the trenches and other excavations and take all necessary precautions to keep the trenches and other excavations entirely clear of water while the utilities are being constructed.
  - C. Where existing sewers or drains are encountered during construction, make adequate provision for diverting the flow of the existing sewers or drains, so as to keep the Work entirely dry during construction.
  - D. Protect newly placed concrete from damage resulting from ground water or sewage, or from the handling or disposal of water and sewage.
  - E. At all times have sufficient pumping equipment ready for immediate use to carry out the Work.
  - F. If wet areas of construction are encountered, make use of well pointing equipment and of other measures such as stone which, in the judgment of the Engineer are required for laying the utility under dry conditions and with proper bedding of the pipe.
7. Bracing and Sheeting:
- A. Furnish, install, and maintain such sheeting, bracing, and shoring, as may be required to properly support the sides of any excavation and to prevent any movement of earth which could in any way injure the Work.
  - B. If the Engineer is of the opinion that, at any point, sufficient and proper supports have not been provided, he may order additional supports at the expense of the Contractor; but neither the placing of such additional supports by the order of the Engineer nor the failure of the Engineer to order such additional supports placed, will release Contractor from his responsibility for the sufficiency of such supports and the integrity of the Work and protection of existing adjacent property or structures from damages.
  - C. In the removing of sheeting and bracing after the utility has been constructed, take special care to prevent any caving of the sides of excavation and injury to the completed Work or to adjacent property.
8. Preparation for Utility Placement
- A. Cut out soft areas of subgrade not capable of compaction in place.
  - B. Compact subgrade to density equal to or greater than requirements for subsequent fill material.
  - C. Until ready to backfill, maintain excavations and prevent loose soil from falling into excavation.
  - D. Form foundations in the trench to prevent any subsequent settlement and resulting excessive pressure to the pipe after backfilling. If the subgrade is of unstable soil,

provide well pointing or use stone to assure that settlement is eliminated. Carefully form subgrade so that the pipe rests on the correct line and grade. Provide the required grade by one of the following methods:

- (1) Excavate to a level 4 inches or more below the final grade line and install embedment material according to *MDOT Standard Plan R-83 Series*. Use this procedure in stable soils only.
  - (2) Excavate to a level 4 inches or more below the final grade line and install MDOT 6A course aggregate to 12 inches above top of pipe and furnish and install a separator fabric in accordance with section 308 of the *Standard Specifications for Construction*. Use this method to stabilize the trench bottom and/or for dewatering purposes.
9. Backfill according to subsection 401.03 of the *Standard Specifications for Construction*, *MDOT Standard Plan R-83 Series* and the following:
- A. Place backfill over utilities to within 1 foot of final grade prior to acceptance testing.
  - B. Bring any depression resulting from settlement of the trench backfill to the proper grade to match the adjacent surface.
  - C. As soon as practicable after concrete structures have been set, forms and debris have been removed, the structure joints have been pointed up or wrapped as specified, the structures have been inspected and approved, backfill the excavated area around structures up to the specified grade.
  - D. Do not place backfill around and over the top of cast-in-place concrete structures until the concrete has attained sufficient strength to sustain all the loads imposed by the backfilling operations.
  - E. Maintain all road and driveway crossings in suitable repair.
    - (1) Promptly repair settlements.
    - (2) Check complaints received by the Engineer and make necessary repairs within 24 hours of the time received or the Owner will make the necessary repairs and deduct the cost thereof from any payment due.
  - F. Compact trenches constructed in established lawn areas so as to permit restoration shortly after completion of the backfilling without appreciable settlement.
  - G. Maintenance and Restoration of Pavement, Walks, Road Surfaces, Etc.:
    - (1) Replace all concrete or asphalt pavement, curbs, drives and sidewalks removed, destroyed, or damaged by Contractor in a manner equal or superior to the previously existing pavement. Saw cut to full depth at the nearest control joint on each side of the area to be removed. Drill and secure green epoxy coated reinforcing bars conforming to section 917 of the *Standard Specifications for Construction* into the existing concrete curb and driveways where required by Engineer before the replacement concrete is poured.

- (2) Where trenches cut or damage roadways or drives other than hard surface pavements, thoroughly compact the trench backfill and restore roadway with MDOT 21AA aggregate base at least 6 inches thick and maintain the roadway during the life of the contract in good condition with additional aggregate as settling takes place.
- H. Trenches Excavated for Repair of Utilities within 1:1 Influence of Roadway (Including Roadway Reconstruction Unless Waived by the Engineer)
- (1) Replace excavated material with MDOT 6A course aggregate with a minimum crushed material content of 95%.
  - (2) Furnish and install a geotextile separator in accordance with section 308 of the *Standard Specifications for Construction*. Install the separator on the roadbed subgrade with an overlap of at least 2 feet beyond the excavated area to ensure that no sand subbase material migrates into the trench.
- d. **Measurement and Payment.** Miscellaneous Trenching will not be paid for separately but will not be paid for separately but will be included in the cost(s) of related items of work.

CITY OF GRAND LEDGE  
SPECIAL PROVISION  
FOR  
**MANHOLES AND OTHER CONCRETE STRUCTURES**

WESI:CN

1 of 2

APPR:JAL 2-17-23

- a. **Description.** This work consists of providing all labor, equipment and materials necessary for installing concrete storm, sanitary, and water structures in accordance with section 403 of the *Standard Specifications for Construction* and *MDOT Standard Plan R-1 Series* except as modified by the plans and this special provision.
- b. **Materials.** Provide materials conforming to subsection 403.02 of the *Standard Specifications for Construction* except as modified by the following section(s) of this Project Manual:

Manhole Steps.....	09-0909
Flexible Pipe-to-Manhole Connector.....	09-0909
Water Infiltration Sealing System.....	09-0909
Drainage Structures, Valve Vaults, and Wetwells.....	09-0909
Concrete Adjustment Rings.....	09-0909
Crystalline Waterproofing Admixture (if specified).....	09-0903
Polyurethane Injection Resin.....	09-0909

Provide Grout Type R-1 and Mortar Type R-2 in accordance with section 702 of the *Standard Specifications for Construction*.

- c. **Construction.** Install structures according to subsection 403.03 of the *Standard Specifications for Construction*, *ASTM C1821*, and the following:
  - 1. **General:** Install structures under dry conditions with dewatering as necessary. Construct structures in such a manner as to exclude all ground water (use polyurethane injection resin or other product approved by the Engineer if necessary). No settlement or shearing of the connecting pipe will be allowed. Backfill pipe penetrations into sanitary structures with 6A course aggregate with a minimum crushed material content of 95% to 1 foot above top of pipe. Grout pockets manufactured for pipe penetrations in sanitary structures with non-shrink grout to eliminate any voids between the pipe and the flow channel. Install water infiltration sealing system on all storm, sanitary, and water structure riser joints in accordance with manufacturer recommendations. Grout all interior joints including; base, riser, cone, flat top, and adjusting rings.
  - 2. **Flow Channels (where field fabricated channels are required):** For existing structures that require construction of a flow channel, install flow through test balls with piping to accommodate existing flow while constructing a smooth flow channel approved by the Engineer. Construct flow channels in such a manner as to ensure flow through them without splashing on sides or deposition of solids. Construct channels with split PVC pipe or wyes securely anchored to the structure floor with stainless steel fasteners or by forming the concrete structure floor to flow channels of the same shape and

dimensions as the required split pipe and wyes. Pour concrete floors and flow channels for structures under dry conditions and protect concrete for a period of at least 24 hours after placement. Rebuild poorly constructed flow lines as directed by the Engineer.

- 3. **Field Quality Control:** Test structures in accordance with *ASTM C1244* if watertightness is in question. The Contractor and Engineer shall agree upon a price prior to testing. Should the structure fail the test, no payment will be made for testing and the Contractor must complete corrective action and re-test at no cost to the Owner. Should the structure pass the test, the Contractor will be paid the agreed upon price. If no agreement can be made, Owner will cause testing to be performed and charge Contractor for all expenses if structure fails the test.

- d. **Measurement and Payment.** The completed work, as described, will be measured and paid for at the contract unit price using the following pay item(s).

<b>Pay Item</b>	<b>Pay Unit</b>
Dr Structure, ___ inch dia, Modified,.....	Each
Dr Structure, Storm CB, ___ inch dia.....	Each

**Drainage and Sanitary Structures Including Drop Structures** will be measured in feet from the top of the cone or flat top section to the top of the concrete footing.

The unit price for **Drainage Structures and Sanitary Structures Including Drop Structures**, of the diameter required includes the cost of the structure regardless of depth (unless the Schedule of Items includes pay item(s) for **Dr Structure, Add Depth \_\_\_** or **Sanitary Structure, Add Depth of \_\_\_ inch dia, more than 12 foot**), temporary or final grade adjustments, water infiltration sealing system, waterproofing, and cleaning new structures.

The Owner will pay separately for final casting adjustment.

CITY OF GRAND LEDGE  
SPECIAL PROVISION  
FOR  
**CONCRETE DRIVEWAYS, CURB AND GUTTER, SIDEWALKS, SIDEWALK RAMPS,  
AND STEPS**

WESI:CN

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APPR:JAL:1-5-22

- a. **Description.** This work consists of providing all labor, equipment and materials necessary for constructing concrete driveways, curb and gutter, sidewalks, sidewalk ramps, and steps in accordance with section 801, section 802, and section 803 of the *Standard Specifications for Construction, MDOT Standard Plan R-29 Series, and MDOT Standard Plan R-30 Series*, except as modified in this special provision.
- b. **Materials.** Provide materials conforming to section 914 and section 1004 of the *Standard Specifications for Construction* except as modified by the following section(s) of this Project Manual:

Sponge Rubber Joint Filler.....	09-0914
Concrete.....	10-1004
Aggregate Base.....	09-0902

- c. **Construction.** Construct according to the following:
  - 1. Construct driveways according to subsection 801.03 of the *Standard Specifications for Construction* and *MDOT Standard Plan R-29 Series* with the following modification(s):
    - A. *MDOT Standard Plan R-29 Series - Concrete Driveway Opening Layout Detail*
      - (1) Tapers and width at sidewalk shall be as directed by the Engineer.
      - (2) Extra width requirement adjacent to "W" on Thickened Concrete Sidewalk detail shall apply to all driveways.
  - 2. Construct curb and gutter according to subsection 802.03 of the *Standard Specifications for Construction* and *MDOT Standard Plan R-30 Series* with the following modification(s):
    - A. In slip forming, use such methods and procedures to ensure an extruded curb and gutter which is true to line, grade and cross-section, free from sags or slumps.
    - B. Forms used for conventionally formed curb and gutter shall be straight, true and clean and subject to the approval of the Engineer.
    - C. Remove and replace curb and gutter with defects and poor workmanship and/or poor appearance at no cost to the Owner.

3. Construct sidewalk, sidewalk ramps, and steps in accordance with subsection 803.03 of the *Standard Specifications for Construction, and MDOT Standard Plan R-28 Series* with the following modification(s):
- A. Sidewalks shall be 5 feet wide minimum unless otherwise indicated on the plans.
  - B. Make saw cuts on concrete, bituminous, or a combination thereof at the nearest existing control joint or as directed by the Engineer. In removing old pavement, curb, gutter, sidewalk, driveways, or similar structures where adjoining surfaces of the existing structures are to be left in the finish Work, remove the old structure to existing joints or sawed to a true line with a power driven concrete saw to full depth. Take any and all precautions necessary to maintain a clean vertical edge on the saw cut throughout the duration of Work. Prior to concrete placement, any spalled or otherwise damaged edge shall be re-cut as required by the Engineer.
  - C. Construct sidewalk ramps, and steps to lines and grades as set by the Engineer or in accordance with the Engineer's instructions.
  - D. Construct sidewalks to provide positive cross slope drainage (typically towards the road in cut sections and towards the right-of-way in fill sections).
  - E. Any cut or fill shall be no less than 1 foot wider on each side than the width of the walk to be built upon it and sloped to meet existing grade as directed by the Engineer.
4. Furnish and provide personnel and barricade devices to protect concrete from vandalism or damage.
5. Replace any newly placed concrete with visible cracks or concrete showing injury or damage at no cost to Owner.
- d. **Measurement and Payment.** The completed work, as described, will be measured and paid for at the contract unit price using the following pay item(s).

<b>Pay Item</b>	<b>Pay Unit</b>
Driveway, Nonreinf Conc, __ inch, Modified.....	Square Yard
Curb and Gutter, Conc, Det __, Modified.....	Foot
Driveway Opening, Conc, Det M, Modified.....	Foot
Curb Ramp, Conc, __ inch, Modified.....	Square Foot
Sidewalk, Conc, __ inch, Modified.....	Square Foot
Sidewalk, Conc, __ inch, Thickened Edge.....	Square Foot
Steps, Conc, Modified.....	Cubic Yard

**Driveway, Nonreinf Conc, \_\_\_ inch, Modified** will be measured in square yards in accordance with the methods specified in subsection 801.04 of the *Standard Specifications for Construction*.

The unit price for **Driveway, Nonreinf Conc, \_\_\_ inch, Modified** includes furnishing and installing an **Aggregate Base, 8 inch, Modified** under all driveways.

**Curb and Gutter, Conc, Det \_\_, Modified** will be measured in feet in accordance with the methods specified in subsection 802.04 of the *Standard Specifications for Construction*.

**Driveway Opening, Conc, Det M, Modified** will be measured in feet in accordance with the methods specified in subsection 802.04 of the *Standard Specifications for Construction*.

**Curb Ramp, Conc, \_\_\_ inch, Modified** will be measured in square feet in accordance with the methods specified in subsection 803.04 of the *Standard Specifications for Construction*.

The unit price for **Curb Ramp, Conc, \_\_\_ inch, Modified** includes all costs associated with furnishing and installing sidewalk ramp, including furnishing and installing **Aggregate Base, 8 inch, Modified** under all sidewalk ramps. The Owner will pay separately for furnishing and installing **Detectable Warning Surface, Cast Iron**.

**Sidewalk, Conc, \_\_\_ inch, Modified** will be measured in square feet in accordance with the methods specified in subsection 803.04 of the *Standard Specifications for Construction*.

The unit price for **Sidewalk, Conc, \_\_\_ inch, Modified** includes furnishing and installing **Aggregate Base, 8 inch, Modified** under all sidewalk thicker than 4 inch and ensuring positive cross slope drainage.

**Sidewalk, Conc, \_\_\_ inch, Thickened Edge** will be measured in square feet in accordance with the methods specified for **Sidewalk, Concrete** in subsection 803.04 of the *Standard Specifications for Construction*.

The unit price for **Sidewalk, Conc, \_\_\_ inch, Thickened Edge** includes furnishing and installing **Subbase, 4 inch, Class II Granular Material, CIP** under sidewalk.

**Steps, Conc, Modified** will be measured in cubic yards in accordance with the methods specified in subsection 803.04 of the *Standard Specifications for Construction*.

CITY OF GRAND LEDGE  
SPECIAL PROVISION  
FOR  
**CONCRETE LATERAL WALL, 2 TO 10 INCH HEIGHT**

WESI:CN

1 of 2

APPR:JAL:1-5-22

- a. **Description.** This work shall consist of providing all labor, equipment and materials necessary for constructing concrete lateral walls on a prepared base as shown on the plans or as directed by the Engineer. Use in locations with steep banks, trees, utility poles and landscaping adjacent to the sidewalk where grading will not be possible behind the new sidewalk.
- b. **Materials.** Provide materials conforming to subsection 803.02 of the *Standard Specifications for Construction*. If these materials are modified by other special provisions found within this contract then use the modified materials.
- c. **Construction.** Construct according to subsection 803.03 of the *Standard Specifications for Construction, MDOT Standard Plan R-29 Series*, the Concrete Lateral Wall detail in this special provision, and the following:
  - 1. Remove the underlying and adjacent material as necessary.
  - 2. Install Class II Granular Material CIP or Aggregate Base, 21AA CIP in unstable areas as directed by the Engineer.
  - 3. Form and pour the lateral wall integral with the adjacent sidewalk. Use expansion material cut from an 8 inch wide piece to match profile of the wall.
  - 4. Backfill behind the lateral wall once it has reached a minimum of 85% of its design strength with Sound Earth or Class II Granular Material. Blend the adjacent grade in with the top of the lateral wall and the new lower sidewalk.
- d. **Measurement and Payment.** The completed work, as described, will be measured and paid for at the contract unit price using the following pay item(s).

**Pay Item**

**Pay Unit**

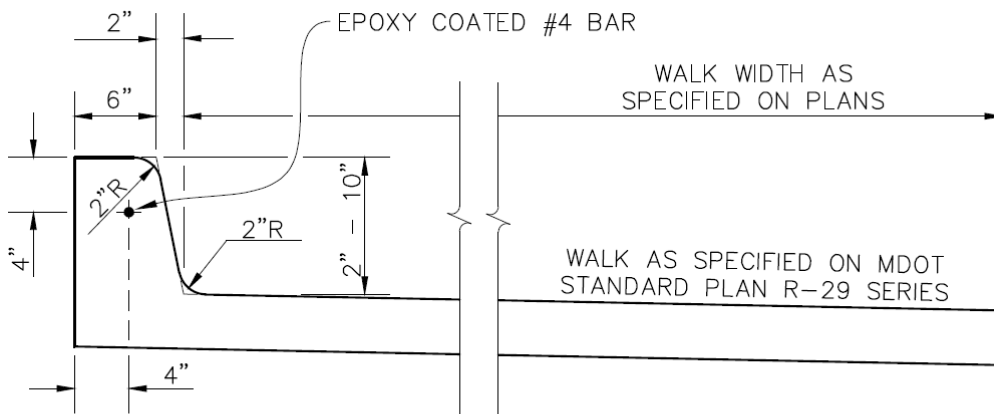
Concrete Lateral Wall, 2 to 10 inch Height.....Foot

**Concrete Lateral Wall, 2 to 10 inch Height** will be measured parallel to the sidewalk in linear feet for the actual length of lateral wall constructed.

The unit price for **Concrete Lateral Wall, 2 to 10 inch Height** includes all costs associated with excavation, placement, backfill, and grading necessary to meet the adjacent grade. Payment also includes furnishing and operating suitable barriers to protect the public.

The Owner will pay separately for **Excavation, Earth** or **Machine Grading, Modified**.

The integral sidewalk adjacent to the concrete lateral wall will be paid for under related sidewalk items and **Class II Granular Material CIP or Aggregate Base, 21AA CIP** will be included in the cost(s) of these related items of work.



CONCRETE LATERAL WALL

CITY OF GRAND LEDGE  
SPECIAL PROVISION  
FOR  
**SUBSTITUTES AND "OR-EQUALS"**

WESI:CN

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APPR:JAL:1-5-22

**09-0900.01 General**

When called for in the Contract Documents, use materials and products specified. Select from any product specified when more than one brand is specified for the same product. Use the same manufacturer for all products that make up a system. For products specified by brand name, provide the exact Product Number or provide an "or-equal" or request a substitute in accordance with the following:

- A. Products specified by reference standards or by description only: Use any product meeting those standards or description.
- B. Products specified in the special provisions for \_\_\_ Materials found in this Project Manual:
  - (1) Submit a request for substitution or "Or-Equal" for any manufacturer not named.
  - (2) **Prior to Bid Opening:** When substitutions are permitted for a named product, Bidder shall identify replacement item as a Substitute or "Or-Equal" and submit a request for Substitute or "Or-Equal" for any manufacturer not named in accordance with Article 10 of Section **00-2000 - EJCDC C-200 INSTRUCTIONS TO BIDDERS FOR CONSTRUCTION CONTRACT**.
  - (3) **After Bid Award:** When substitutions are permitted for a named product, Contractor must identify replacement item as a Substitute and submit a request for Substitute for any manufacturer not named in accordance with subsection 7.06 of Section **00-7001 - EJCDC C-700 STANDARD GENERAL CONDITIONS OF THE CONSTRUCTION CONTRACT**.

**NOTE: "Or-Equal" products will not be considered after Bid Award. Contractor shall reimburse Owner for Engineer's time in reviewing the proposed material or product.**

CITY OF GRAND LEDGE  
SPECIAL PROVISION  
FOR  
**CONCRETE MATERIALS**

WESI:CN

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APPR:JAL:1-5-22

**Dry Concrete Mix**

The QUIKRETE® Companies, One Securities Centre, 3490 Piedmont Rd., NE, Suite 1300, Atlanta, GA 30305, Ph. 404.634.9100, Product Name: Fast Setting Concrete Mix Product No. 1004-50

**Non-Structural Flowable Fill**

Supply non-structural flowable fill consisting of a mixture of Portland cement, fly ash, and water. Use materials conforming to the *Standard Specifications for Construction* and other applicable standards.

Use either Type I or IA Portland cement conforming to section 901 of the *Standard Specifications for Construction* and Class F fly ash as specified by ASTM C618 except that there is no limit on loss on ignition.

Produce a mix of cement, fly ash, and water in the following proportions.

Portland Cement	100 lb/cyd
Fly Ash	2000 lb/cyd
Water	approx. 748 lb/cyd (sufficient to produce desired flowability)

CITY OF GRAND LEDGE  
SPECIAL PROVISION  
FOR  
**DRAINAGE MATERIALS**

WESI:CN

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APPR:JAL:3-24-23

**Steel Pipe for Jacking in Place**

Provide steel pipe conforming to section 909 of the *Standard Specifications for Construction* except as modified below:

Provide steel pipe with a minimum yield strength, SMYS, of at least 35,000 psi and meeting the requirements of either, ASTM A53/A53M Type E or S Grade B, ASTM A139/A139M Grade B, ASTM A106/A106M Grade B or C, or API Spec 5L Grades X42 through X55.

Casing Pipe Diameter Nominal Pipe Size (inch)	Nominal Wall Thickness (inch)
10 and Under	0.188
12	0.250
14	0.250
16	0.281
18	0.312
20	0.344
22	0.344
24	0.375
26	0.406
28	0.438
30	0.469

**Storm Sewer Lead Materials**

Use PVC Pipe conforming to *ASTM D3034* with a Standard Dimension Ratio of SDR 26 unless otherwise indicated on plans or this special provision:

Use fittings conforming to *ASTM D3034* of same SDR as pipe molded or formed to suit pipe size and end design, in tee, bends, elbows, cleanouts, reducers, traps, repair couplings and other configurations required.

Use joints conforming to *ASTM D3212*, with *ASTM F477* gaskets.

Use joint lubricants as recommended by the pipe manufacturer.

**Sanitary Sewer Main and Lead Materials**

Use joints conforming to *ASTM D3212*, with *ASTM F477* gaskets.

Use joint lubricants as recommended by the pipe manufacturer.

Use PVC repair couplings. Flexible Pipe-to-Pipe Connectors will only be allowed under special circumstances at the sole discretion of the Engineer.

**Mains:**

Use PVC pipe conforming to *ASTM D3034* with a Standard Dimension Ratio of SDR 26.

Use fittings conforming to *ASTM D3034* of same SDR as pipe molded or formed to suit pipe size and end design, in tee, bends, elbows, cleanouts, reducers, traps, repair couplings and other configurations required.

**Leads:**

**Open Cut**

Use PVC pipe conforming to *ASTM D1785*, Schedule 40, bell and spigot style solvent sealed or gasketed joint end for all sewer leads

Use fittings conforming to *ASTM D2466* and *ASTM D2467* as applicable of same Schedule as pipe molded or formed to suit pipe size and end design, in tee, bends, elbows, cleanouts, reducers, traps, repair couplings and other configurations required.

**Horizontal Directional Drill**

Integral bell restrained joint pipe:

NAPCO Pipe & Fittings, 2801 Post Oak Blvd # 600, Houston, TX 77056, Ph. 800.621.4404, Product Name: Certa-Flo® PVC Gravity Sewer Pipe DR 21.

Use fittings conforming to *ASTM D3034* and *ASTM D3139 as applicable*, of same DR as pipe molded or formed to suit pipe size and end design, in tee, bends, elbows, cleanouts, reducers, traps, repair couplings and other configurations required.

**Flexible Pipe-to-Pipe Connector**

**Taps:**

Trelleborg, 5503 Distribution Drive, Fort Wayne, IN 46825, Ph. 260.478.2800, Product Name: Kor-N-Tee

Fernco Inc, 300 S. Dayton Street, Davison, MI 48423, Ph. 800.503.9000, Product Name: QwikSeal

**Connections (dissimilar materials):**

Fernco Inc, 300 S. Dayton Street, Davison, MI 48423, Ph. 800.503.9000, Product Name: HULK Couplings

**Flexible Pipe-to-Manhole Connector**

Trelleborg, 5503 Distribution Drive, Fort Wayne, IN 46825, Ph. 260.478.2800, Product Name: Kor-N-Seal 106/406 Series

Press Seal Gasket Corporation, P.O. Box 10482, Fort Wayne, IN 46852, Ph. 800.348.7325, Product Name: PSX:Direct Drive

**Manhole Steps**

M.A. Industries, Inc, 303 Dividend Drive, Peachtree City, GA 30269, Ph. 800.241.8250, Product Name: PS1-PF

American Step Company, Inc, 830 East Broadway, Griffin, GA 30224-0137, Ph. 800.988.7837, Product Name: ML-10-NCR

**Water Infiltration Sealing System**

GPT Industries, 4990 Iris Street, Wheat Ridge, CO 80033, Ph. 303.988.1242, Product Name: Boa-Tape Extra Grip or Riser-Wrap (12 inch)

Sealing Systems, Inc., 9350 County Road 19, Loretto, MN 55357, Ph. 800.478.2054, Product Name: Infa-Shield Gator Wrap (12 inch)

**Drainage Structures, Valve Vaults, and Wetwells**

Use rubber gaskets conforming to *ASTM C443* on all structures.

Configuration:

Provide precast structures only unless otherwise indicated on the plans.

Install factory flow channels/benches on all sanitary structures unless otherwise indicated on the plans.

Provide a 2 foot sump on all catch basins.

Provide flexible pipe-to-manhole connectors on all sanitary structures.

Provide an integral base on all bottom riser sections unless otherwise approved by the Engineer.

Top Sections (unless otherwise indicated on plans):

Manholes: Cone section unless otherwise approved by the Engineer.

Catch Basins: Cone section or flat top.

Valve Vaults and Cleanouts: As indicated on the plans.

Wet Wells: As indicated on plans.

Include a 1/2 inch galvanized or stainless steel capped pipe nipple approximately 10 inches long precast into manhole at a location 6 inches above the invert of the flow channel on sanitary structures.

#### Sanitary Drop Manholes:

Provide precast concrete encased PVC external drop manholes at all sanitary structure locations where the incoming sewer invert elevation is greater than 24 inches above the outletting sewer invert elevation.

Use precast reinforced bottom section conforming to *MDOT Standard Plan R-1 Series*.

Use SDR 26 for drop pipe and fittings (tee and elbow).

Use a standard elbow cast into the bottom section of the structure.

Include a flexible connector on the upper penetration.

Inside drops may be allowed under special circumstances only.

Fabricate pipe openings at the time of structure manufacture. No structures will be accepted where openings have been made in precast units at the Site unless approved by the Engineer.

#### **Concrete Adjustment Rings**

Use reinforced concrete adjustment rings with a minimum thickness of 2 inches unless otherwise approved by the Engineer, and include four equally spaced 3/4" diameter holes for bolt down type castings. Cracked or otherwise damaged adjustment rings will be rejected.

#### **Cover Frame Support**

Whirlygig, Inc., 2418 Bishop Circle, Caldwell, ID 83605, Ph. 800.307.4263, Product Name: Whirlygig Form (must be cut with Whirlygig Radial Arm Trimmer or other Engineer approved method)

#### **Polyurethane Injection Resin**

Avanti International, 822 Bay Star Blvd., Webster, TX 77598, Ph. 800.877.2570, Product Name: AV-202 Multigrout

CITY OF GRAND LEDGE  
SPECIAL PROVISION  
FOR  
**JOINT AND WATERPROOFING MATERIALS**

WESI:CN

1 of 1

APPR:JAL:2-17-23

**Sponge Rubber Expansion Material**

Provide sponge rubber expansion material for Curb and Gutter, Driveway, Sidewalk, and Sidewalk Ramps in accordance with *ASTM D1752* and *AASHTO M 153*.

**Preformed Flexible Joint Sealant**

Provide butyl tape material meeting the requirements of *ASTM C765*, *ASTM C972*, and *ASTM C990*.

CITY OF GRAND LEDGE  
SPECIAL PROVISION  
FOR  
**EROSION CONTROL MATERIALS**

WESI:CN

1 of 1

APPR:JAL:1-5-22

**Inlet Protection Fabric Drop**

ACF Environmental, Inc., 41080 Bond Drive, Morristown, OH 43718, Ph. 800.448.3636,  
Product Name: Siltsack - Standard-Flow - Type B (includes curb deflector)

ADS Flexstorm, 24137 W. 111th St - Unit A, Naperville, IL 60564, Ph. 866.287.8655,  
Product Name: Flexstorm Catch-It and Flexstorm Pure used with filter bag types FX,  
FX+, FXO, PC, PC+ or IL

CSI Geoturf, 1500 Alloy Parkway-P.O. Box 668, Highland, MI 48357, Ph. 248.887.6767,  
Product Name: Basin Bag™

Dandy Products, Inc., P.O. Box 1680, Powell, OH 43065, Ph. 800.591.2284, Product  
Name: Dandy Curb Bag, Dandy Bag, Dandy Curb Sack, Dandy Sack, or Dandy Pop

Hanes Geo Components, 38160 Amrhein Rd., Kensington Center, Bldg 3E, Livonia, MI  
48150, Ph. 866.960.4300, Product Name: Inlet Pro® Sediment Bag, Standard Flow, with  
optional foam deflector

terrafix® Geosynthetics Inc., 455 Horner Avenue, Toronto, ON, M8W 4W9, Ph.  
416.674.0363, Product Name: Siltsack®

CITY OF GRAND LEDGE  
SPECIAL PROVISION  
FOR  
**PORTLAND CEMENT CONCRETE MIXTURES**

WESI:CN

1 of 1

APPR:JAL:1-5-22

**Concrete**

Use concrete conforming to MDOT Grade 3500 with the following properties unless otherwise indicated.

Use 6AA course aggregate.

Cement Content shall be 6.0 sack/Cyd (564 lb/Cyd).

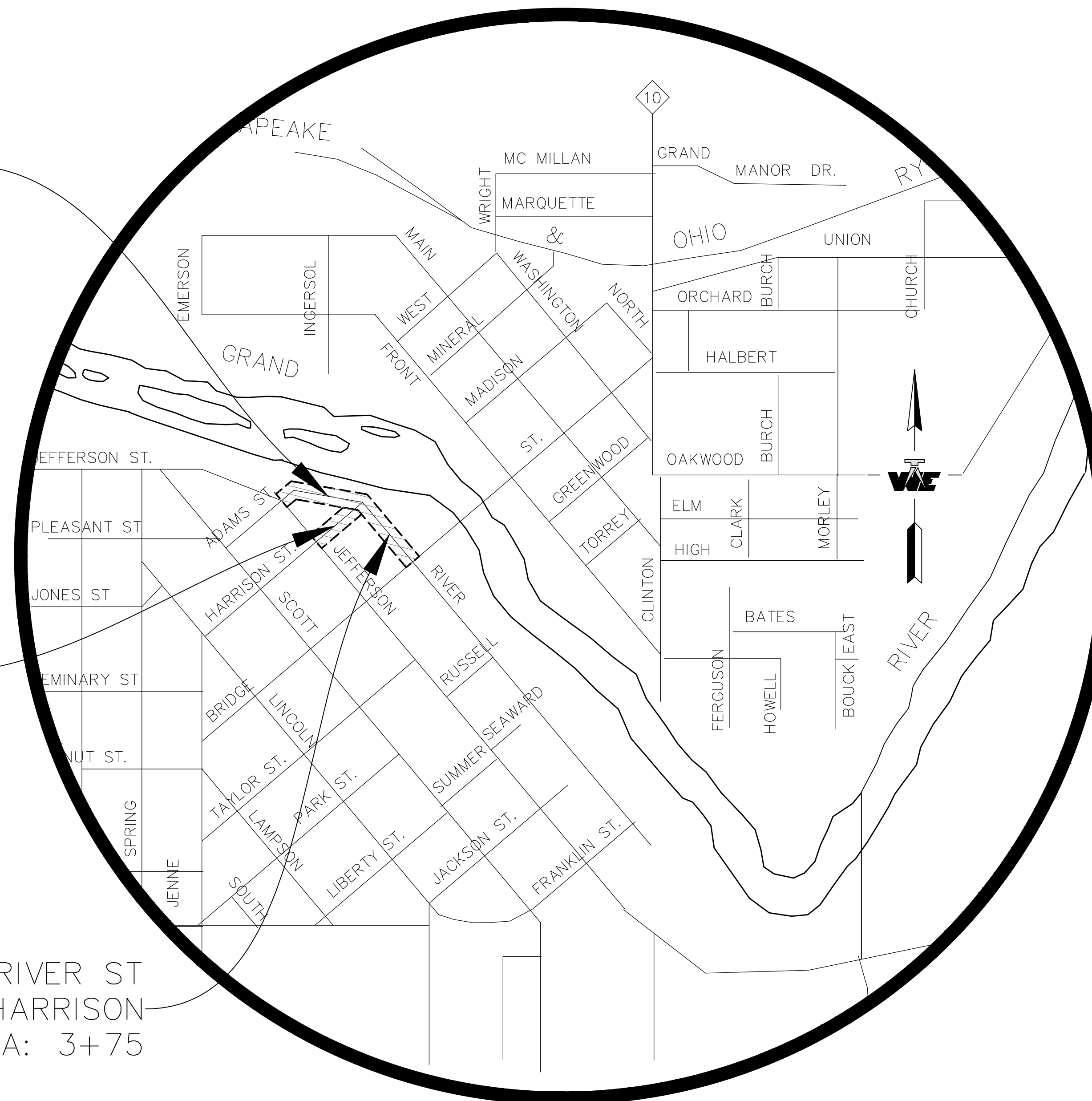
# RIVER AND HARRISON STREETS IMPROVEMENTS

CITY OF GRAND LEDGE  
SECTION 11, ONEIDA TOWNSHIP  
EATON COUNTY, MICHIGAN

W RIVER ST  
HARRISON TO W JEFFERSON  
STA: 3+75 TO STA: 9+44

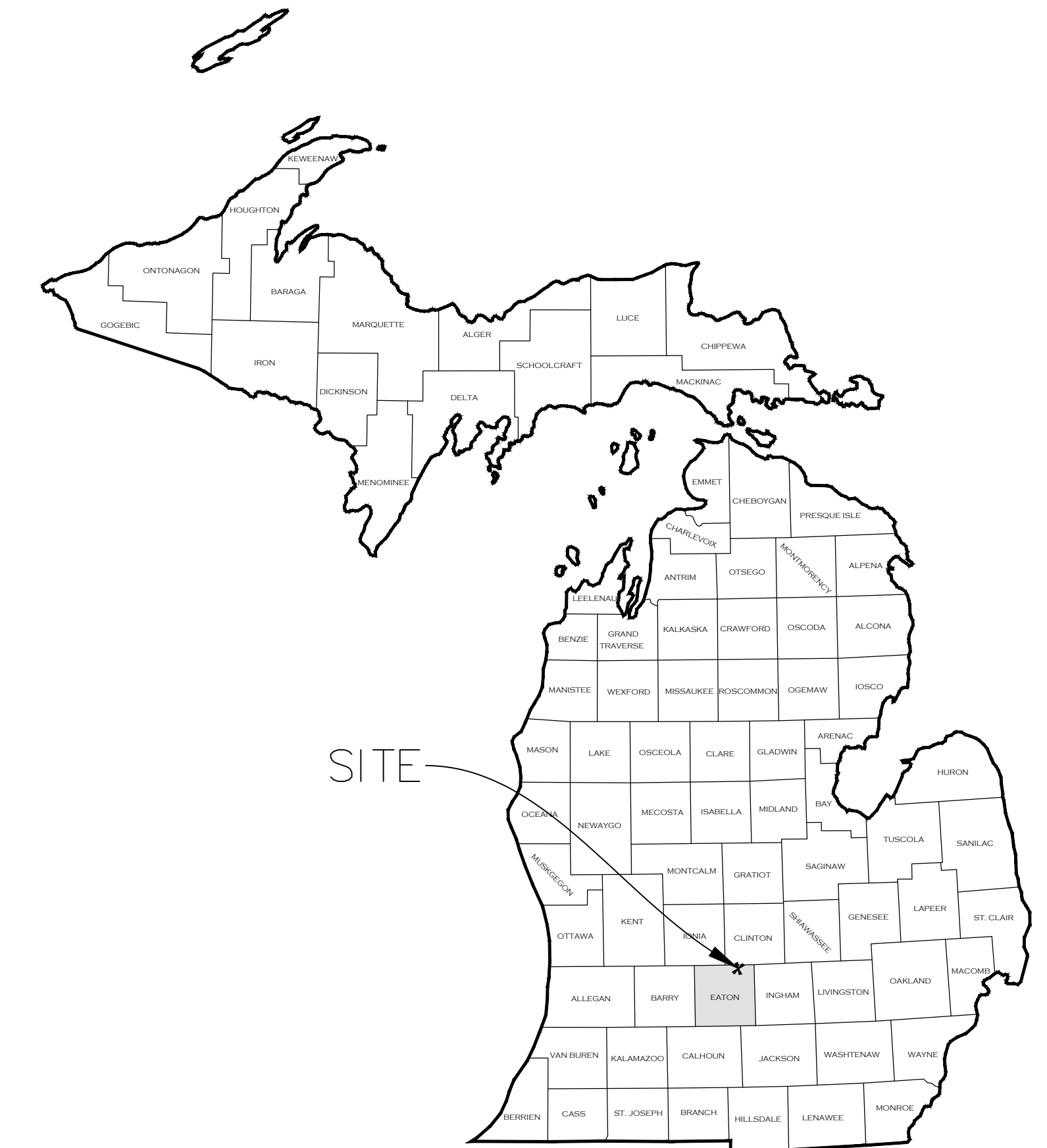
HARRISON ST  
W RIVER TO W JEFFERSON  
STA: 0+00 TO STA: 4+52

W RIVER ST  
S BRIDGE TO HARRISON  
STA: 0+00 TO STA: 3+75



LOCATION MAP

NOT TO SCALE



## Sheet List Table

SHEET NUMBER	SHEET TITLE
C0.0	COVER
C1.0	ABBREVIATIONS LEGEND GENERAL NOTES
C1.1	DETAILS
C1.2	PARCELS AND TRAFFIC CONTROL
C2.0	TOPOGRAPHIC SURVEY
C3.0	REMOVAL PLAN
C3.1	PROPOSED PLAN
C3.2	PROPOSED STORM PLAN & PROFILE
C3.3	PROPOSED RAMP DETAIL AND GRADING PLAN
C4.0	SESC PLAN
PGS 11-15	GIFFELS WEBSTER PLANS FOR REFERENCE ONLY

OWNER CONTACT INFORMATION  
CITY OF GRAND LEDGE  
CONTACT: DAVID GUTCHES  
310 GREENWOOD ST  
GRAND LEDGE, MICHIGAN 48837  
PH: 517-627-2149  
FX:  
EMAIL: DGUTCHES@CITYOFGRANDLEDGE.COM

**WOLVERINE**  
Engineers & Surveyors, Inc.  
312 North Street  
Mason, Michigan 48854  
Ph: 517-676-9200  
Fx: 517-676-9396  
<http://www.wolveng.com>

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BID SET

RIVER AND HARRISON STREETS IMPROVEMENTS 24-0013

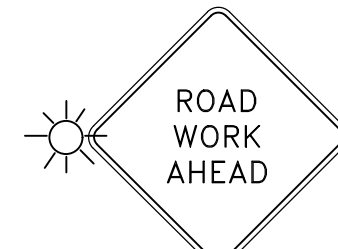

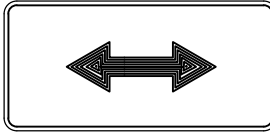
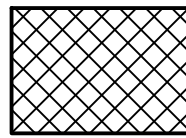




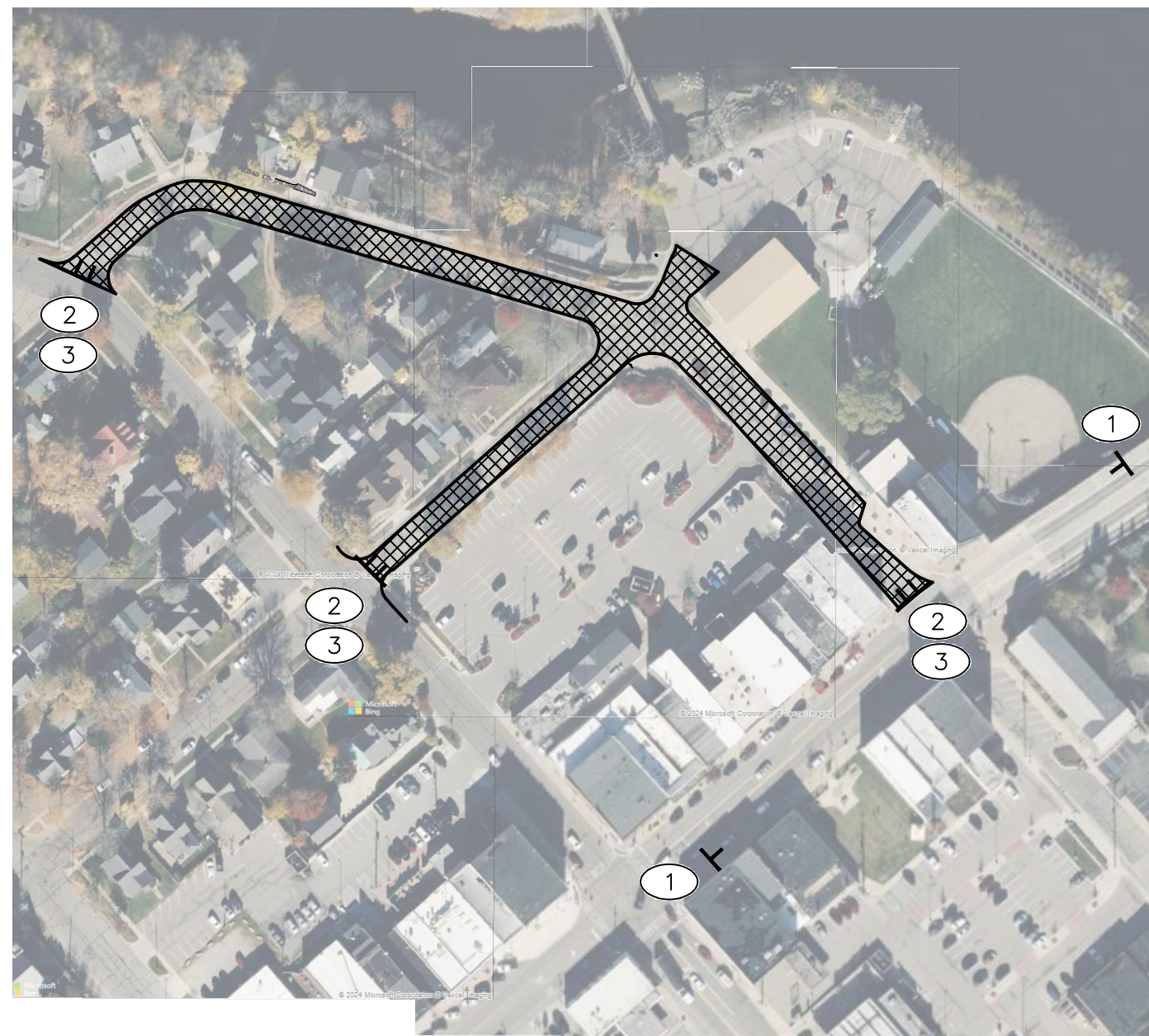


S:\Projects\2024\Engineering Projects\24-0013 City Of Grand Ledge River And Harrison Streets\C30\DWG\C1.2 PARCELS AND TRAFFIC CONTROL.dwg, Thursday, June 27, 2024, 3:52:03 PM, Caleb A. Neff

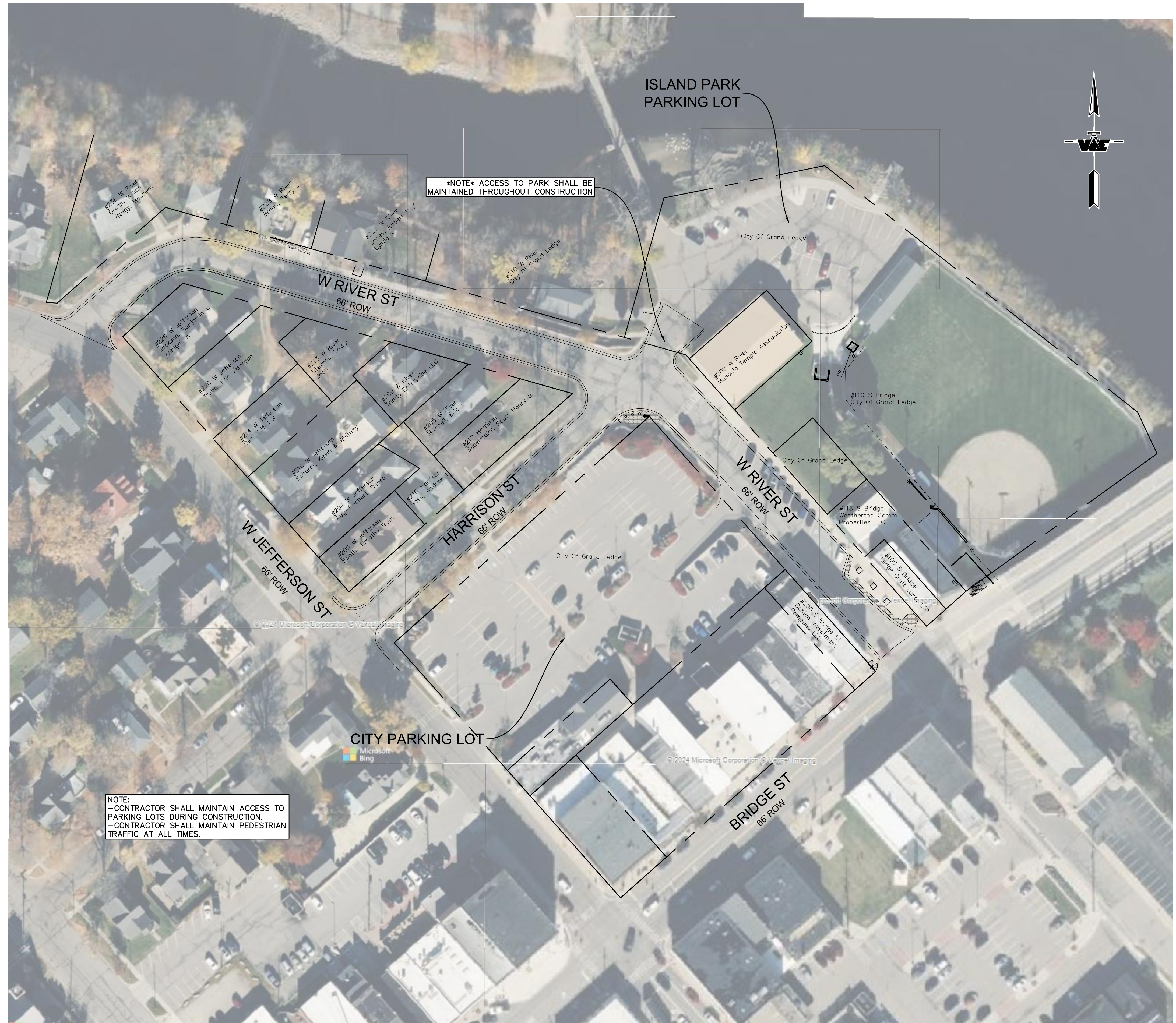
**LEGEND**

"FOR REFERENCE ONLY"

-  ROAD WORK AHEAD
-  ROAD CLOSED TO THRU TRAFFIC
- 
- 
- 
- 
- ..... W20-1
- ..... R11-4
- ..... W1-7
- ..... ROAD CLOSED OR CONSTRUCTION AREA
- ..... TYPE III BARRICADE, LIGHTED
- ..... CONSTRUCTION SIGN



**TRAFFIC CONTROL PLAN**  
1" = 150'

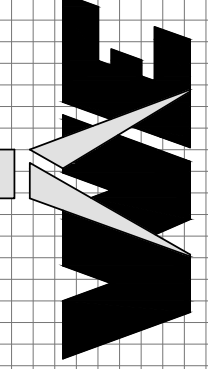


\*NOTE\* ACCESS TO PARK SHALL BE MAINTAINED THROUGHOUT CONSTRUCTION

NOTE:  
-CONTRACTOR SHALL MAINTAIN ACCESS TO PARKING LOTS DURING CONSTRUCTION.  
-CONTRACTOR SHALL MAINTAIN PEDESTRIAN TRAFFIC AT ALL TIMES.

REVISION	DATE	DRAWN	DESCRIPTION

**WOLVERINE**  
Engineers & Surveyors, Inc.  
312 North Street  
Mason, Michigan 48854  
Ph: 317.676.9200  
Fx: 317.676.9396  
http://www.wolentg.com



**BID SET**

PROJECT: RIVER AND HARRISON STREETS RECONSTRUCTION  
CITY OF GRAND LEDGE  
EATON COUNTY, MICHIGAN  
PARCELS AND TRAFFIC CONTROL

APPROVED: DBH  
CHECKED: DBH  
DRAWN: MOC  
JOB NO.: 24-0013  
DATE: 6/28/2024  
SCALE: 1" = 50'  
SHEET NO.: C1.2

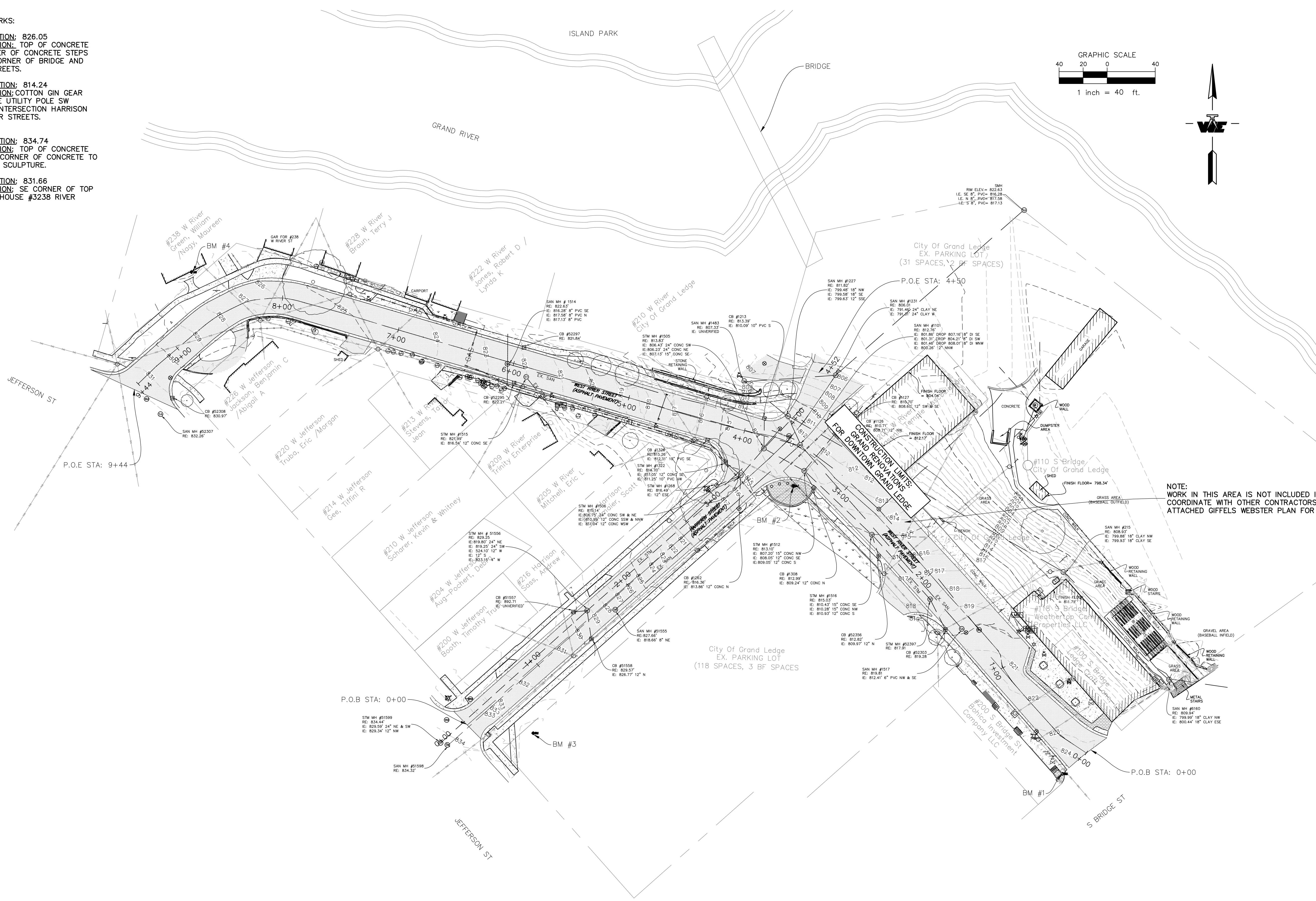
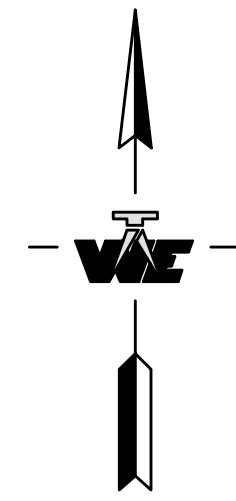
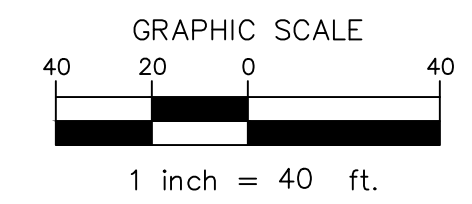
**BENCHMARKS:**

**#1 ELEVATION:** 826.05  
**LOCATION:** TOP OF CONCRETE SE CORNER OF CONCRETE STEPS AT NW CORNER OF BRIDGE AND RIVER STREETS.

**#2 ELEVATION:** 814.24  
**LOCATION:** COTTON GIN GEAR EAST SIDE UTILITY POLE SW CORNER INTERSECTION HARRISON AND RIVER STREETS.

**#3 ELEVATION:** 834.74  
**LOCATION:** TOP OF CONCRETE AT EAST CORNER OF CONCRETE TO AIRPLANE SCULPTURE.

**#4 ELEVATION:** 831.66  
**LOCATION:** SE CORNER OF TOP STEP AT HOUSE #3238 RIVER STREET.



**NOTE:** WORK IN THIS AREA IS NOT INCLUDED IN THIS CONTRACT, COORDINATE WITH OTHER CONTRACTORS AS NEEDED. SEE ATTACHED GIFFELS WEBSTER PLAN FOR REFERENCE ONLY.

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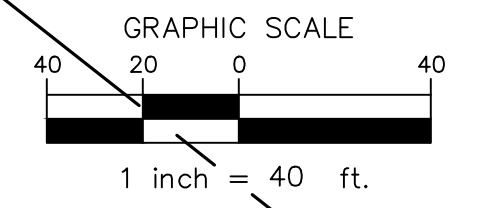
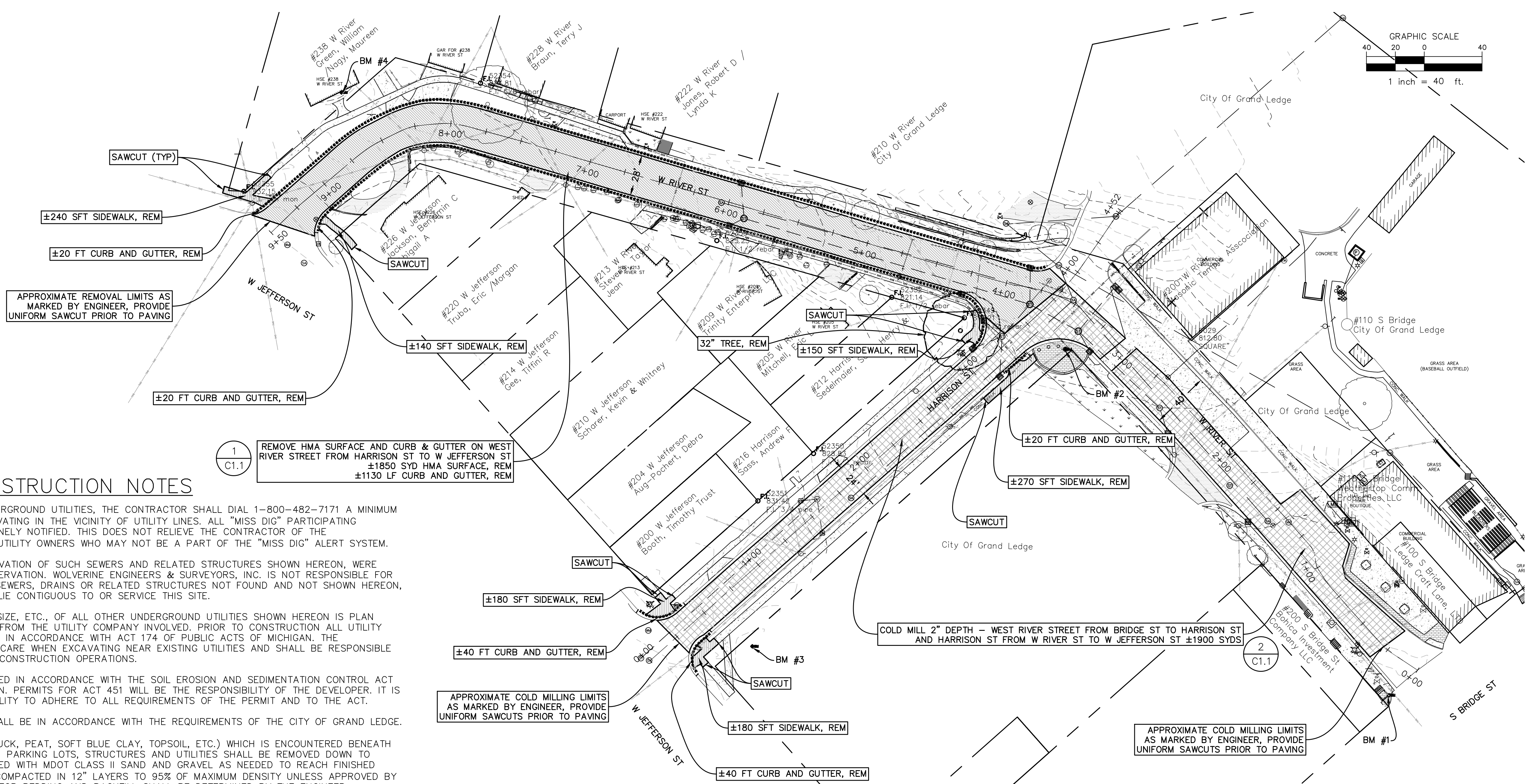
REVISION	DATE	DRAWN	DESCRIPTION

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**RIVER AND HARRISON STREETS RECONSTRUCTION**  
**CITY OF GRAND LEDGE**  
**EATON COUNTY, MICHIGAN**  
**TOPOGRAPHIC SURVEY**

PROJECT: RIVER AND HARRISON STREETS RECONSTRUCTION  
 APPROVED: DBH  
 CHECKED: DBH  
 DRAWN: MOC  
 JOB NO.: 24-0013  
 DATE: 6/28/2024  
 SCALE: 1" = 40'  
 SHEET NO.: C2.0

- BENCHMARKS:**
- #1 ELEVATION: 826.05**  
WITNESS: TOP OF CONCRETE SE CORNER OF CONCRETE STEPS AT NW CORNER OF BRIDGE AND RIVER STREETS.
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WITNESS: TOP OF CONCRETE AT EAST CORNER OF CONCRETE TO AIRPLANE SCULPTURE.
  - #4 ELEVATION: 831.66**  
WITNESS: SE CORNER OF TOP STEP AT HOUSE #3238 RIVER STREET.



**GENERAL CONSTRUCTION NOTES**

1. FOR THE PROTECTION OF UNDERGROUND UTILITIES, THE CONTRACTOR SHALL DIAL 1-800-482-7171 A MINIMUM OF 72 HOURS PRIOR TO EXCAVATING IN THE VICINITY OF UTILITY LINES. ALL "MISS DIG" PARTICIPATING MEMBERS WILL THUS BE ROUTINELY NOTIFIED. THIS DOES NOT RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY OF NOTIFYING UTILITY OWNERS WHO MAY NOT BE A PART OF THE "MISS DIG" ALERT SYSTEM.
2. THE LOCATIONS, SIZE AND ELEVATION OF SUCH SEWERS AND RELATED STRUCTURES SHOWN HEREON, WERE OBTAINED THROUGH FIELD OBSERVATION. WOLVERINE ENGINEERS & SURVEYORS, INC. IS NOT RESPONSIBLE FOR INFORMATION ON ANY OTHER SEWERS, DRAINS OR RELATED STRUCTURES NOT FOUND AND NOT SHOWN HEREON, THAT MAY CROSS, PARALLEL, LIE CONTIGUOUS TO OR SERVICE THIS SITE.
3. THE INFORMATION ON DEPTH, SIZE, ETC., OF ALL OTHER UNDERGROUND UTILITIES SHOWN HEREON IS PLAN INFORMATION ONLY, OBTAINED FROM THE UTILITY COMPANY INVOLVED. PRIOR TO CONSTRUCTION ALL UTILITY COMPANIES SHALL BE NOTIFIED IN ACCORDANCE WITH ACT 174 OF PUBLIC ACTS OF MICHIGAN. THE CONTRACTOR SHALL EXERCISE CARE WHEN EXCAVATING NEAR EXISTING UTILITIES AND SHALL BE RESPONSIBLE FOR ALL DAMAGE CAUSED BY CONSTRUCTION OPERATIONS.
4. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE SOIL EROSION AND SEDIMENTATION CONTROL ACT OF 1994, ACT 451 OF MICHIGAN. PERMITS FOR ACT 451 WILL BE THE RESPONSIBILITY OF THE DEVELOPER. IT IS THE CONTRACTORS RESPONSIBILITY TO ADHERE TO ALL REQUIREMENTS OF THE PERMIT AND TO THE ACT.
5. TRAVELWAY CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE CITY OF GRAND LEDGE.
6. ANY UNSTABLE SOIL (MARL, MUCK, PEAT, SOFT BLUE CLAY, TOPSOIL, ETC.) WHICH IS ENCOUNTERED BENEATH PROPOSED BUILDINGS, DRIVES, PARKING LOTS, STRUCTURES AND UTILITIES SHALL BE REMOVED DOWN TO SOUND SUBSOIL AND BACKFILLED WITH MDOT CLASS II SAND AND GRAVEL AS NEEDED TO REACH FINISHED GRADE. SUCH FILL SHALL BE COMPACTED IN 12" LAYERS TO 95% OF MAXIMUM DENSITY UNLESS APPROVED BY THE ENGINEER. THE MATERIAL FOR BEDDING AND BACKFILL SHALL BE DETERMINED BY THE ENGINEER.
7. THE COMPACTION OF TRENCHES WITHIN THE ROADWAY SHALL BE TO 95% MAXIMUM DENSITY. EQUIPMENT SUCH AS A SMALL DOZER IN THE TRENCHES AND A HOE-PACK AROUND THE STRUCTURES WILL BE REQUIRED, OR EQUIPMENT CAPABLE OF REACHING 95% MAXIMUM DENSITY.
8. A MINIMUM OF 10' HORIZONTAL CLEARANCE AND 18" VERTICAL CLEARANCE MUST BE MAINTAINED BETWEEN SEWER AND WATER PIPES.
9. ALL EXISTING DRIVEWAYS, ROADS, WALKS AND YARDS DISTURBED DURING CONSTRUCTION SHALL BE RESTORED BY THE CONTRACTOR TO ITS ORIGINAL CONDITION.
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11. ALL AREAS DISTURBED BY CONSTRUCTION SHALL BE COVERED BY 3" OF TOPSOIL, SEEDED AND MULCHED.
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14. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING CURB CUTS FOR SIDEWALKS AND DRIVEWAYS.
15. STORAGE OF EQUIPMENT OR MATERIALS WITHIN MDOT RIGHT-OF-WAY WILL NOT BE PERMITTED.
16. SIGN COVERS SHALL BE PLACED OVER EXISTING REGULATORY, WARNING, AND CONSTRUCTION SIGNS THAT ARE NOT APPLICABLE DURING CONSTRUCTION. THE SIGN COVERS SHALL BE IN ACCORDANCE WITH MDOT 2020 STANDARD SPECIFICATIONS FOR CONSTRUCTION.
17. THE CONTRACTOR IS NOT PERMITTED TO HAVE A "FULL WIDTH ROADWAY" CLOSURE AT ANY TIME.
18. MINIMUM LANE WIDTHS DURING CONSTRUCTION ARE 10 FT WITH MINIMUM 1 FT SHY DISTANCES TO TRAFFIC CONTROL/CHANNELIZING DEVICES AND ANY OTHER OBSTRUCTIONS. ALL ROADWAYS WILL BE RESTORED TO TWO 12 FT TRAVEL LANES, ONE IN EACH DIRECTION OF TRAVEL, AT THE END OF EACH WORK DAY.
19. THE SIGNING SEQUENCE FOR FLAG CONTROL AT UN-SIGNALIZED INTERSECTIONS AND DRIVEWAYS SHALL BE AS OUTLINED IN PART 6 OF THE MMUTCD.

1  
C1.1  
REMOVE HMA SURFACE AND CURB & GUTTER ON WEST RIVER STREET FROM HARRISON ST TO W JEFFERSON ST  
±1850 SYD HMA SURFACE, REM  
±1130 LF CURB AND GUTTER, REM

APPROXIMATE COLD MILLING LIMITS AS MARKED BY ENGINEER, PROVIDE UNIFORM SAWCUTS PRIOR TO PAVING

2  
C1.1  
COLD MILL 2" DEPTH - WEST RIVER STREET FROM BRIDGE ST TO HARRISON ST AND HARRISON ST FROM W RIVER ST TO W JEFFERSON ST ±1900 SYDS

APPROXIMATE COLD MILLING LIMITS AS MARKED BY ENGINEER, PROVIDE UNIFORM SAWCUTS PRIOR TO PAVING

NOTE:  
MILLINGS TO BE RETAINED BY OWNER  
13256 LAWSON ROAD GRAND LEDGE, MI  
GRAND LEDGE DPW GARAGE

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REVISION	DATE	DESCRIPTION

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312 North Street  
Mason, Michigan 48854  
Ph: 317.676.9200  
Fax: 317.676.9396  
http://www.wolveneng.com

**BID SET**

PROJECT: RIVER AND HARRISON STREETS RECONSTRUCTION  
CITY OF GRAND LEDGE  
EATON COUNTY, MICHIGAN

SHEET TITLE: REMOVAL PLAN

APPROVED:	DBH
CHECKED:	DBH
DRAWN:	MOC
JOB NO.:	24-0013
DATE:	6/28/2024
SCALE:	1" = 40'
SHEET NO.:	C3.0

- BENCHMARKS:**
- #1 ELEVATION: 826.05  
WITNESS: TOP OF CONCRETE SE CORNER OF CONCRETE STEPS AT NW CORNER OF BRIDGE AND RIVER STREETS.
  - #2 ELEVATION: 814.24  
WITNESS: COTTON GIN GEAR EAST SIDE UTILITY POLE SW CORNER INTERSECTION HARRISON AND RIVER STREETS.
  - #3 ELEVATION: 834.74  
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  - #4 ELEVATION: 831.66  
WITNESS: SE CORNER OF TOP STEP AT HOUSE #3238 RIVER STREET.

±50' TRENCH DRAIN (SEE DETAIL 3 ON SHEET C1.1) TIE INTO CATCH BASIN A-3

±60 SFT 6" CURB RAMP  
±5 LF CURB RAMP OPENING  
±5 LF DETECTABLE WARNING SURFACE  
±184 SFT 4" SIDEWALK

±60 SFT 6" CURB RAMP  
±5 LF CURB RAMP OPENING  
±5 LF DETECTABLE WARNING SURFACE  
±93 SFT 4" SIDEWALK

±90 LF PAVT MRKG, WATERBORNE, 12 INCH, WHITE  
10' LONG (TYP) 3' C/C SPACING

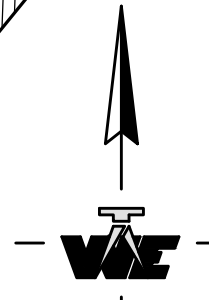
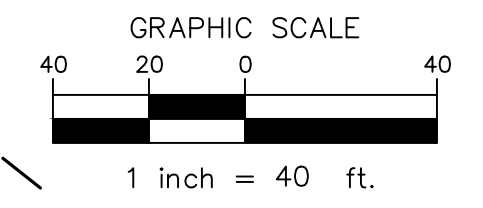
±43 SFT 6" CURB RAMP  
±5 LF CURB RAMP OPENING  
±5 LF DETECTABLE WARNING SURFACE  
±105 SFT 4" SIDEWALK

±15 FT CURB AND GUTTER, DET F4  
±40 SFT 6" CURB RAMP  
±5 LF CURB RAMP OPENING  
±5 LF DETECTABLE WARNING SURFACE  
±202 SFT 4" SIDEWALK

±26 FT CURB AND GUTTER, DET F4  
±110 SFT 6" CURB RAMP  
±10 LF CURB RAMP OPENING  
±10 LF DETECTABLE WARNING SURFACE  
±50 SFT 4" SIDEWALK

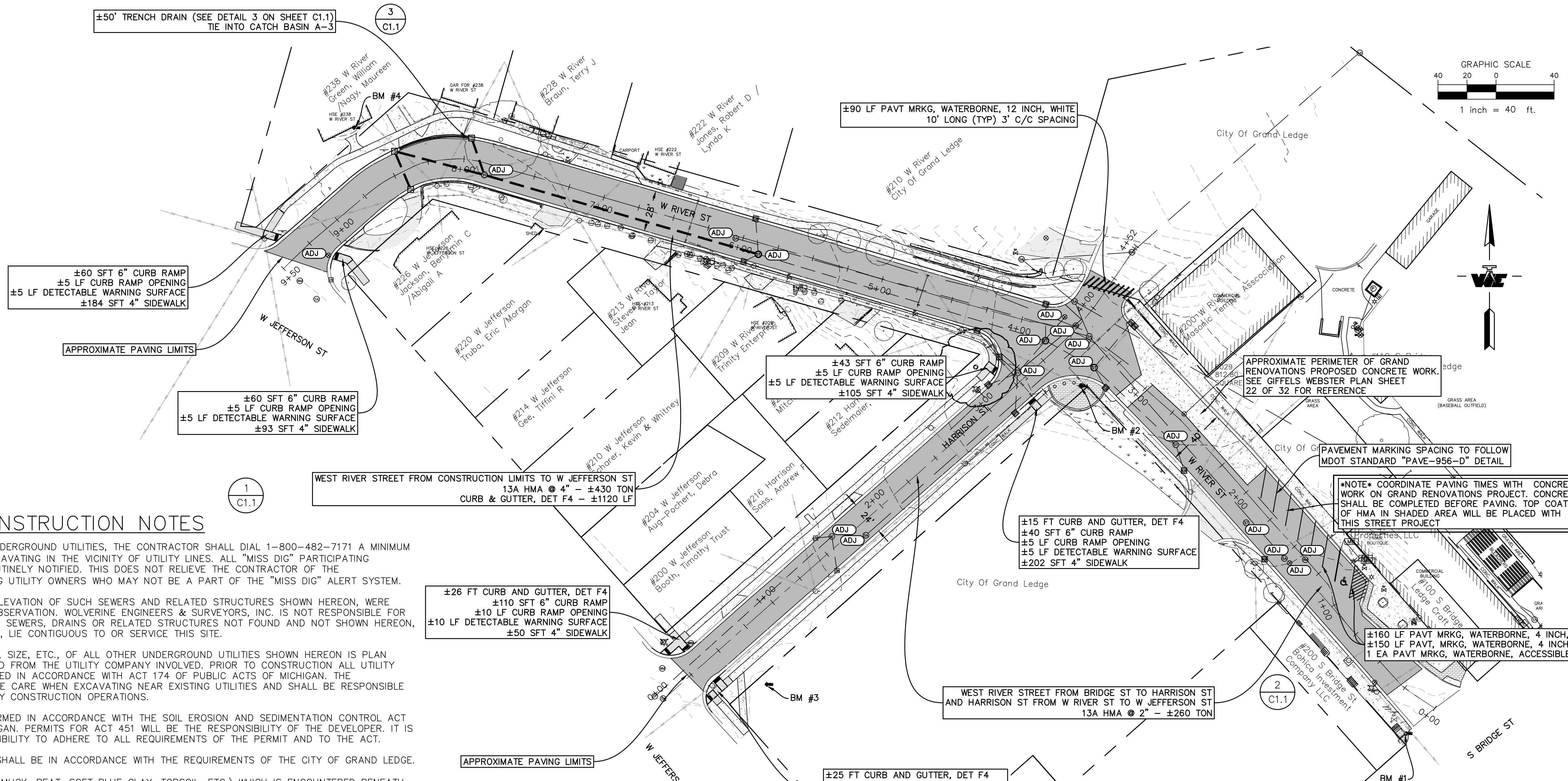
±25 FT CURB AND GUTTER, DET F4  
±86 SFT 6" CURB RAMP  
±10 LF CURB RAMP OPENING  
±10 LF DETECTABLE WARNING SURFACE  
±71 SFT 4" SIDEWALK

**NOTE:**  
- PROPOSED SIDEWALK AND RAMPS ARE TO FOLLOW MDOT 2020 STANDARD SPECIFICATIONS FOR CONSTRUCTION  
- CAST IRON DETECTABLE WARNING SURFACES ARE REQUIRED, NO PLASTIC ALLOWED



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REVISION	DATE	DESCRIPTION

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http://www.wolvenet.com

**RIVER AND HARRISON STREETS RECONSTRUCTION**  
CITY OF GRAND LEDGE  
EATON COUNTY, MICHIGAN  
PROPOSED PLAN

PROJECT	APPROVED	DBH
CHECKED	DBH	
DRAWN	MOC	
JOB NO.	24-0013	
DATE	6/28/2024	
SCALE	1" = 40'	
SHEET NO.	C3.1	

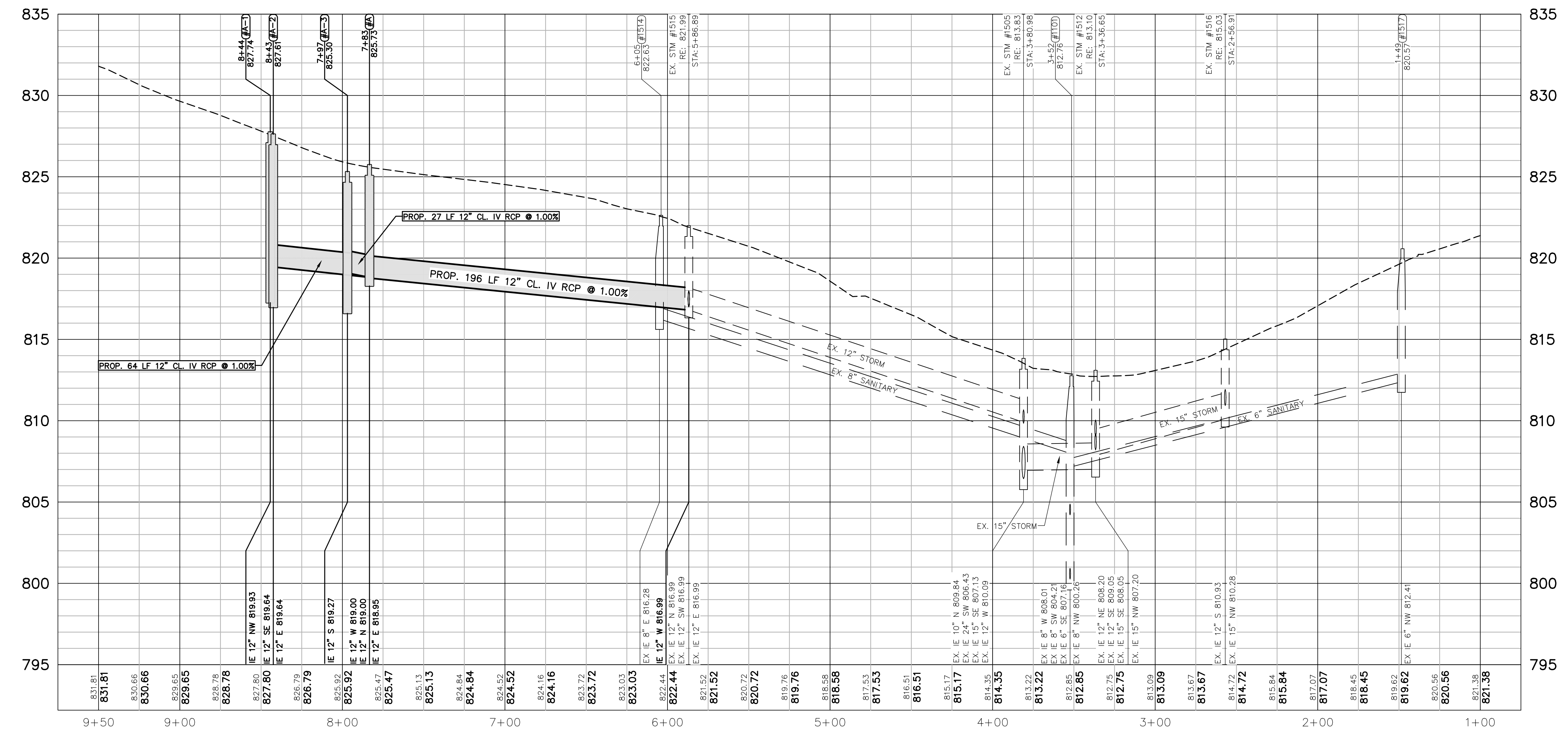
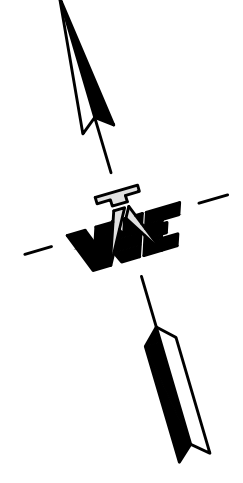
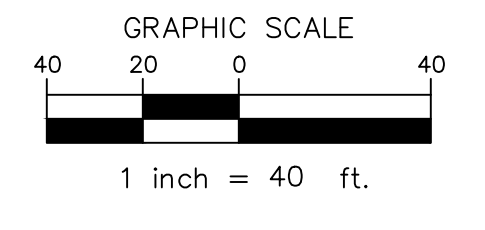
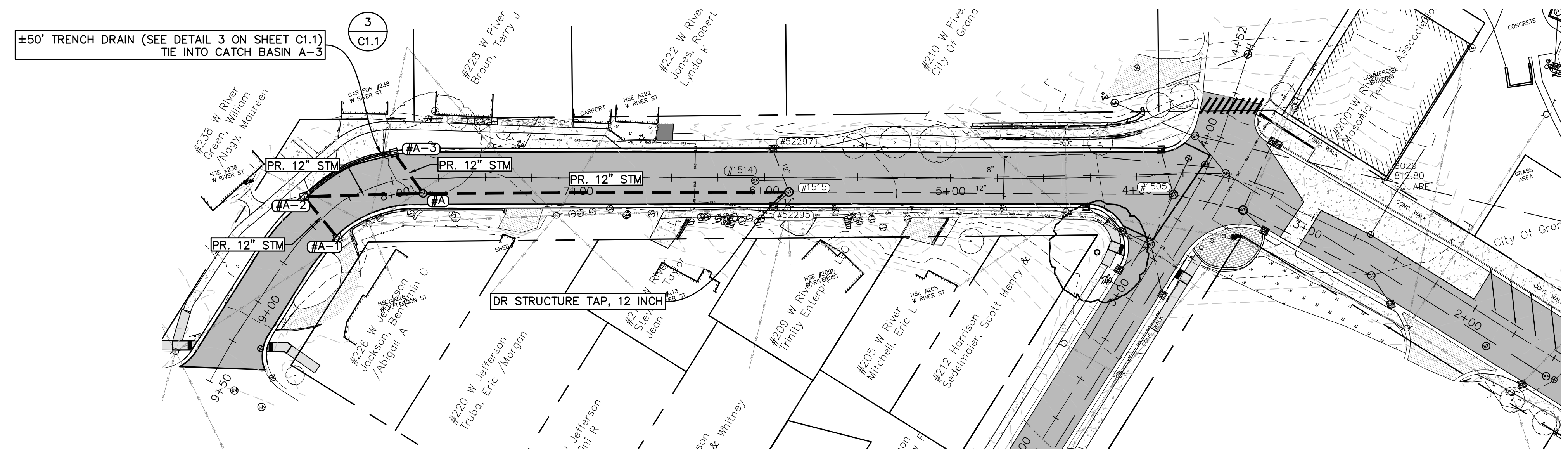
BENCHMARKS:

#1 ELEVATION: 826.05  
WITNESS: TOP OF CONCRETE SE CORNER OF CONCRETE STEPS AT NW CORNER OF BRIDGE AND RIVER STREETS.

#2 ELEVATION: 814.24  
WITNESS: COTTON GIN GEAR EAST SIDE UTILITY POLE SW CORNER INTERSECTION HARRISON AND RIVER STREETS.

#3 ELEVATION: 834.74  
WITNESS: TOP OF CONCRETE AT EAST CORNER OF CONCRETE TO AIRPLANE SCULPTURE.

#4 ELEVATION: 831.66  
WITNESS: SE CORNER OF TOP STEP AT HOUSE #3238 RIVER STREET.



S:\Projects\2024\Engineering Projects\24-0013 City Of Grand Ledge River And Harrison Streets\CADD\DWG\C3.0 C3.1 C3.2 REMOVAL - PROPOSED - STORM PLAN.dwg, Thursday, June 27, 2024 3:52:30 PM, Coleb A. Neff

REVISION	DATE	DESCRIPTION

**WOLVERINE**  
Engineers & Surveyors, Inc.

312 North Street  
Mason, Michigan 48854  
Ph: 317.676.9200  
Fax: 317.676.9396  
http://www.wolvenet.com

**BID SET**

PROJECT: RIVER AND HARRISON STREETS RECONSTRUCTION  
CITY OF GRAND LEDGE  
EATON COUNTY, MICHIGAN

PROPOSED STORM PLAN & PROFILE

APPROVED: DBH

CHECKED: DBH

DRAWN: MOC

JOB NO.: 24-0013

DATE: 6/28/2024

SCALE: 1" = 40'

SHEET NO.: C3.2



S:\Projects\2024\Engineering Projects\24-0013 City Of Grand Ledge River And Harrison Streets\C3D\DWG\C4.0 SECC PLAN.dwg, Thursday, June 27, 2024 3:52:44 PM, Coleb A. Neff

**SOIL EROSION NOTES:**

1. THE SOIL EROSION PERMIT IS TO BE POSTED AT THE CONSTRUCTION ENTRANCE OF THE SITE UNTIL THE LAND IS PERMANENTLY STABILIZED AND THE PERMIT IS CLOSED BY THE DRAIN COMMISSIONER. FAILURE TO HAVE THE PERMIT POSTED COULD RESULT IN A CEASE AND DESIST ORDER. IT IS RECOMMENDED THAT THE PERMIT BE LAMINATED TO WITHSTAND THE WEATHER.
2. THE MAINTENANCE PROGRAM FOR ALL TEMPORARY AND PERMANENT SOIL EROSION CONTROL MEASURES, INCLUDING MAINTENANCE RESPONSIBILITIES, SHALL BECOME A PART OF ANY SALES OR EXCHANGE AGREEMENT FOR THE LAND ON WHICH PERMANENT SOIL EROSION CONTROL MEASURES ARE LOCATED.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ADHERING TO ALL THE REQUIREMENTS OF THE EATON COUNTY DRAIN COMMISSIONER'S SOIL EROSION PERMIT.
4. AN EATON COUNTY DRAIN OFFICE INSPECTOR MUST BE PRESENT DURING ANY WORK ON STORM WATER STRUCTURES THAT ARE TO BE PUBLICLY DEDICATED OR WITHIN AN EASEMENT OR THOSE STRUCTURES DEEMED TO BE UNDER THE JURISDICTION OF THE DRAIN COMMISSIONER. THE EATON COUNTY DRAIN OFFICE (KEVIN KALMBACH, 543-3886) IS TO BE NOTIFIED NO LESS THAN THREE BUSINESS DAYS IN ADVANCE OF THE WORK TO ARRANGE FOR AN INSPECTOR. EVERY ATTEMPT TO ACCOMMODATE PERMITTEE'S SCHEDULE WILL BE MADE WHEN NOTIFIED OF THE NEED FOR AN INSPECTOR, HOWEVER, FAILURE TO HAVE AN INSPECTOR AVAILABLE ON ANY PARTICULAR REQUESTED DAY DOES NOT ABSOLVE THE PERMITTEE OF THE REQUIREMENT TO HAVE AN INSPECTOR PRESENT DURING THE PERMITTED WORK.
5. PRIOR TO START OF CONSTRUCTION, SUBMIT THE MOBILE PHONE NUMBER FOR THE ON-SITE CONTACT PERSON TO THE ATTENTION OF KEVIN KALMBACH.
6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSTALLATION OF ALL TEMPORARY SOIL EROSION CONTROL MEASURES PRIOR TO OR AT THE COMMENCEMENT OF CONSTRUCTION ACTIVITY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CHECKING ALL SOIL EROSION CONTROL MEASURES DAILY FOR EFFECTIVENESS AND FOR REPAIR, AS NEEDED. AN EATON COUNTY DRAIN OFFICE INSPECTOR IS TO VERIFY PROPER INSTALLATION OF THESE MEASURES PRIOR TO EARTH DISTURBANCE.
7. STOCKPILE AREAS ARE TO BE LOCATED AT LEAST 50 FEET FROM SENSITIVE AREAS SUCH AS STREAMS, LAKES, AND WETLANDS AND AT LEAST 50 FEET FROM ALL PROPERTY BOUNDARIES. STOCKPILE AREAS SHALL BE TEMPORARILY STABILIZED WITH A COVER CROP OR GEO-MEMBRANE IF LEFT INACTIVE FOR GREATER THAN 30 DAYS.
8. PERMITTEE MUST STRICTLY MAINTAIN DUST CONTROL AT ALL TIMES DURING CONSTRUCTION AND UNTIL THE SOIL EROSION PERMIT IS CLOSED BY THE EATON COUNTY DRAIN COMMISSIONER.
9. ANY CATCH BASIN LOCATED ON-SITE OR WITHIN 50 FEET OF THE CONSTRUCTION DISTURBANCE SHALL HAVE TEMPORARY INLET PROTECTION. FILTER BAGS SUCH AS A SILT SACK OR EQUIVALENT ARE EATON COUNTY DRAIN COMMISSION APPROVED METHODS FOR INLET PROTECTION.
10. ALL TEMPORARY SOIL EROSION CONTROL MEASURES WILL BE REMOVED WHEN THE DRAIN OFFICE CLOSURES THE PERMIT.
11. THE DETENTION BASIN AND ALL AREAS OF DISTURBANCE ADJACENT TO REGULATED WETLANDS, SHALL HAVE TOPSOIL PLACED (6 INCHES), SEEDING (DORMANT SEEDING IF SEEDING IS DONE IN LATE FALL OR WINTER), SILT STOP APPLIED, AND EROSION CONTROL MATTING APPROPRIATE FOR THE SLOPE CONDITIONS (NORTH AMERICAN GREEN SISOBN OR EQUIVALENT) INSTALLED WITHIN 5 DAYS OF FINAL GRADING. BASINS ARE TO BE STABILIZED (VEGETATED) PRIOR TO ANY DISCHARGE OF STORM WATER INTO OR FROM A BASIN INTO THE WATERS OF THE STATE.
12. STORM SEWER EASEMENTS SHALL REMAIN FREE OF FENCES, EQUIPMENT, ETC. SO AS TO ALLOW MAINTENANCE VEHICLES TO SERVICE THE STORM SEWER SYSTEM. MOVING SHALL BE RESTRICTED TO NO CLOSER THAN 10 FEET AWAY FROM THE EDGE OF THE DETENTION BASIN.
13. DIRT TRACKED OFF SITE ONTO PUBLIC ROADS SHALL BE PROMPTLY REMOVED, NO LESS THAN ON A DAILY BASIS.
14. SEEDING AND MULCHING WITHIN EXISTING OR PROPOSED DRAIN RIGHTS-OF-WAY ARE TO FOLLOW EATON COUNTY DRAIN OFFICE GUIDELINES FOR NATIVE VEGETATION (CONTACT SOIL EROSION ENFORCEMENT OFFICER KEVIN KALMBACH FOR A COPY OF THE GUIDELINES). SEEDING AND MULCHING SHALL FOLLOW GENERALLY ACCEPTED GUIDELINES AS OUTLINED IN THE MDEQ'S "GUIDEBOOK OF BMP'S FOR MICHIGAN WATERSHEDS" AND/OR THE MACDC 2006 SOIL EROSION AND SEDIMENTATION CONTROL PROCEDURES MANUAL EXCEPT AS AMENDED IN WRITING BY THE EATON COUNTY DRAIN COMMISSIONER'S OFFICE. REFER TO THE SEEDING CHART FOR SEED MIXTURES, APPLICATION RATES, AND SEEDING SCHEDULE.
15. RIP RAP OVER GEOTEXTILE FABRIC SHALL BE PROVIDED AT THE DOWNSTREAM SIDE OF ALL CULVERTS AND STORM SEWERS AND ON DITCH CENTERLINE SLOPES STEEPER THAN TWO PERCENT (2%) AND AS INDICATED ON THE PLANS. RIP RAP MUST BE NATURAL STONE IN ACCORDANCE WITH EATON COUNTY DRAIN COMMISSIONER'S REQUIREMENTS.
16. SURPLUS SOIL SHALL BE BERMED ON THE SITE IN AN AREA OUTSIDE OF THE PAVED PARKING AND THE DETENTION BASIN. BERMS SHALL NOT EXCEED GRADING PERIMETERS AS SHOWN ON THE PLANS OVER EXISTING OR PROPOSED BURIED UTILITIES.
17. IF THE PROPERTY SUBJECT TO THE SOIL EROSION PERMIT IS TRANSFERRED, THE PERMIT, INCLUDING ALL PERMIT OBLIGATIONS AND CONDITIONS, ARE TRANSFERRED WITH THE PROPERTY ALONG WITH THE RESPONSIBILITY FOR ANY VIOLATIONS OF THE PERMIT THAT EXIST ON THE DATE OF THE TRANSFER OF THE PROPERTY. IF A PARCEL OF THE PROPERTY, BUT NOT THE ENTIRE PROPERTY IS TRANSFERRED, THE PERMIT OBLIGATIONS AND CONDITIONS WITH RESPECT TO THAT PARCEL ARE TRANSFERRED, BUT NOT THE PERMIT, ALONG WITH THE RESPONSIBILITY FOR ANY VIOLATIONS OF THE PERMIT WITH RESPECT TO THAT PARCEL THAT EXIST ON THE DATE OF THE TRANSFER OF THE PARCEL. NOTICE OF PROPERTY OR PARCEL TRANSFERS SHALL BE SUBMITTED TO THE DRAIN OFFICE PRIOR TO TRANSFER AND OTHERWISE SHALL BE IN COMPLIANCE WITH MCL 324.9112.
18. APPROVAL OF THE SOIL EROSION PERMIT DOES NOT AUTHORIZE CONNECTION TO ANY COUNTY DRAIN, OCCUPATION OF ANY EASEMENT OF A COUNTY DRAIN, OR CROSSING OF ANY COUNTY DRAIN. A SEPARATE TAP-IN PERMIT, OCCUPATION LICENSE, OR CROSSING PERMIT MUST BE ISSUED BY THE DRAIN COMMISSIONER PRIOR TO ANY SUCH WORK. PERMITS TO CROSS OR CONNECT THE COUNTY DRAINS WILL NOT BE ISSUED UNTIL ALL PERMITS ARE ISSUED BY THE MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY (MDEQ) FOR THAT WORK, AND COPIES OF SAME ARE SUBMITTED TO THE DRAIN COMMISSIONER.
19. APPROVAL OF THE SOIL EROSION PERMIT DOES NOT AUTHORIZE ANY EARTH DISTURBANCE ACTIVITY IN STATE REGULATED WETLANDS UNTIL A PERMIT, OBTAINED FROM THE MDEQ, IS SUBMITTED AUTHORIZING THAT EARTH DISTURBANCE ACTIVITY OR SEDIMENTATION OF THE WETLANDS.
20. APPROVAL OF THE SOIL EROSION PERMIT DOES NOT AUTHORIZE ANY EARTH DISTURBANCE ACTIVITY OFF-SITE UNTIL PERMISSION IS OBTAINED AND SUBMITTED TO THE DRAIN COMMISSION FROM THE LANDOWNERS OF THOSE PROPERTIES ON WHICH THE DISTURBANCE IS TO OCCUR AND A SOIL EROSION PLAN IS SUBMITTED AND APPROVED BY THE DRAIN COMMISSIONER FOR THAT WORK, INCLUDING, BUT NOT LIMITED TO, PLACEMENT OF EXCAVATED MATERIAL FROM THIS SITE.

**SOIL EROSION CONTROL METHODS**

SOIL EROSION CONTROL METHODS ARE DETAILED USING THE MICHIGAN DEPARTMENT OF MANAGEMENT AND BUDGET KEYING SYSTEM.

TEMPORARY MEASURES - TO BE INSTALLED AND MAINTAINED DURING CONSTRUCTION. REMOVE UPON COMPLETION OF CONSTRUCTION ACTIVITIES. CLOSE OUT SOIL EROSION PERMIT.

PERMANENT MEASURES - TO BE INSTALLED AS PART OF THE CONSTRUCTION PROJECT.

KEY	BEST MANAGEMENT PRACTICES	SYMBOL	WHERE USED
E5	DUST CONTROL		For use on construction sites, unpaved roads, etc. to reduce dust and sedimentation from wind and construction activities.
E6	MULCH		For use in areas subject to erosive surface flows or severe wind or on newly seeded areas.
E7	TEMPORARY SEEDING		Stabilization method utilized on construction sites where earth change has been initiated but not completed within a 2 week period.
E8	PERMANENT SEEDING		Stabilization method utilized on sites where earth change has been completed (final grading attained).
E9	MULCH BLANKETS		On exposed slopes, newly seeded areas, new ditch bottoms, or areas subject to erosion.
E12	RIPRAP		Use along shorelines, waterways, or where concentrated flows occur. Slows velocity, reduces sediment load, and reduces erosion.
E14	ENERGY DISSIPATER		Where the energy transmitted from a concentrated flow of surface runoff is sufficient to erode receiving area or watercourse.

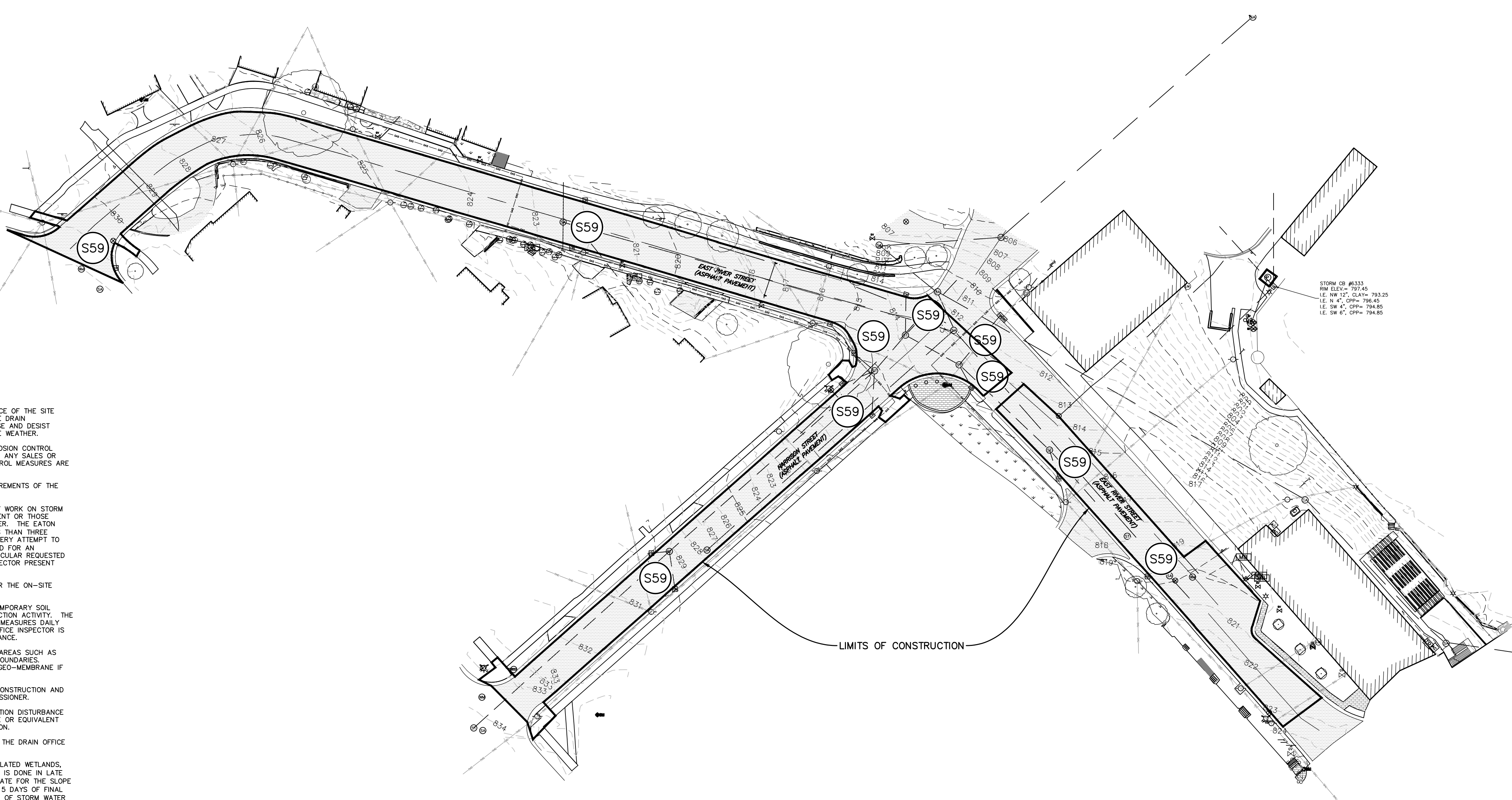
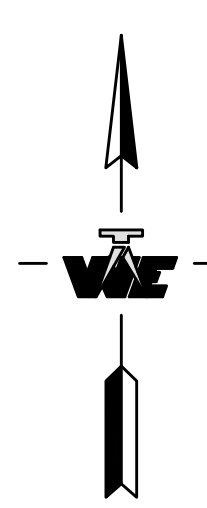
KEY	BEST MANAGEMENT PRACTICES	SYMBOL	WHERE USED
S51	SILT FENCE		Use adjacent to critical areas, to prevent sediment laden sheet flow from entering these areas.
S53	STABILIZED CONSTRUCTION ACCESS		Used at every point where construction traffic enters or leaves a construction site.
S54	TIRE WASH		For use on construction sites where vehicular traffic requires sediment removed from its tires in highly erosive areas.
S58	INLET PROTECTION FABRIC DROP		Use at storm water inlets, especially at construction sites.
S59	INLET PROTECTION FABRIC FENCE		Use at stormwater inlets, especially at construction sites.

**SEEDING SCHEDULE**

NOVEMBER 1 - APRIL 1	APRIL 1 - JULY 1	JULY 1 - AUGUST 1	AUGUST 1 - NOVEMBER 1
DORMANT SEED WITH HAY MULCH AND TACKIFIER OR HEAVY STRAW BLANKET (PEGGED) SEED MIX A.	SEED MIX A OR B	SEED MIX A OR B, IRRIGATION REQUIRED	SEED MIX A
DATES ARE DEPENDENT ON TEMPERATURE AND PRECIPITATION. WHEN IN DOUBT, CONTACT THE DRAIN COMMISSIONER'S OFFICE. CHECK WITH SUPPLIER FOR OTHER MIXTURES SUITABLE FOR THE LOCATION AND SOIL TYPES TO BE STABILIZED.			
<b>MIX A</b> 40% PERENNIAL RYEGRASS 40% CREEPING RED FESCUE 20% TALL FESCUE APPLY AT 5# TO 6#/1000 SFT		<b>MIX B</b> 40% ANNUAL RYEGRASS 30% PERENNIAL RYEGRASS 30% SEED OATS APPLY AT 9#/1000 SFT	
FOLLOW SOIL TEST RECOMMENDATIONS FOR FERTILIZER. IF NO SOIL TEST WAS DONE, APPLY 12-12-12 (NITROGEN-PHOSPHOROUS-POTASSIUM) AT A RATE RECOMMENDED BY THE MANUFACTURER OR AT 10 #/1000 S.F.			

**TENTATIVE SEQUENCE OF CONSTRUCTION:**

- WEEK 1: INSTALL TEMPORARY SOIL EROSION CONTROL MEASURES AND REMOVE CONCRETE RAMPS.  
LAYOUT RAMPS AND REMOVE CONCRETE AS NEEDED FOR SLOPE, REMOVE CURB AND GUTTER AS DIRECTED IN THE FIELD. PULVERIZE ASPHALT, 2-4 INCHES.  
PREPARE SUB BASE FOR NEW RAMPS AND CURB AND GUTTER, CHECK GRADES.
- WEEK 2: POUR NEW CURB AND GUTTER.
- WEEK 3: POUR RAMPS WITH DETECTABLE SURFACE, MAINTAIN ADA COMPLIANCE.
- WEEK 4: ADJUST CASTINGS, LAY NEW ASPHALT  
CLEANUP AND STABILIZE DISTURBED AREAS, REFER TO SEEDING CHART.
- WEEK 5: PARKING STRIPES AND CROSSWALKS.
- WEEK 6: REMOVE SOIL EROSION MEASURES.



STORM CR #6333  
 RM ELEV. = 797.45  
 I.E. NW 1/4, C&P# = 793.25  
 I.E. N 1/4, C&P# = 796.45  
 I.E. SW 1/4, C&P# = 794.85  
 I.E. SE 1/4, C&P# = 794.85

REVISION	DATE	DESCRIPTION

**WOLVERINE**  
 Engineers & Surveyors, Inc.  
 312 North Street  
 Mason, Michigan 48854  
 Ph: 676-9320  
 Fax: 317-6528  
 http://www.wolverine.com

**BID SET**

PROJECT: RIVER AND HARRISON STREETS RECONSTRUCTION  
 CITY OF GRAND LEDGE  
 EATON COUNTY, MICHIGAN

CHECKED: DBH  
 DRAWN: DBH  
 MOC

JOB NO. 24-0013  
 DATE: 6/28/2024  
 SCALE: NO SCALE  
 SHEET NO. C4.0

SHEET TITLE: SECC PLAN

# GRAND RENOVATIONS FOR DOWNTOWN GRAND LEDGE

## CONTRACT No. 2023-03A: BRIDGE STREET & W. RIVER STREET STREETScape

### GENERAL PROVISIONS:

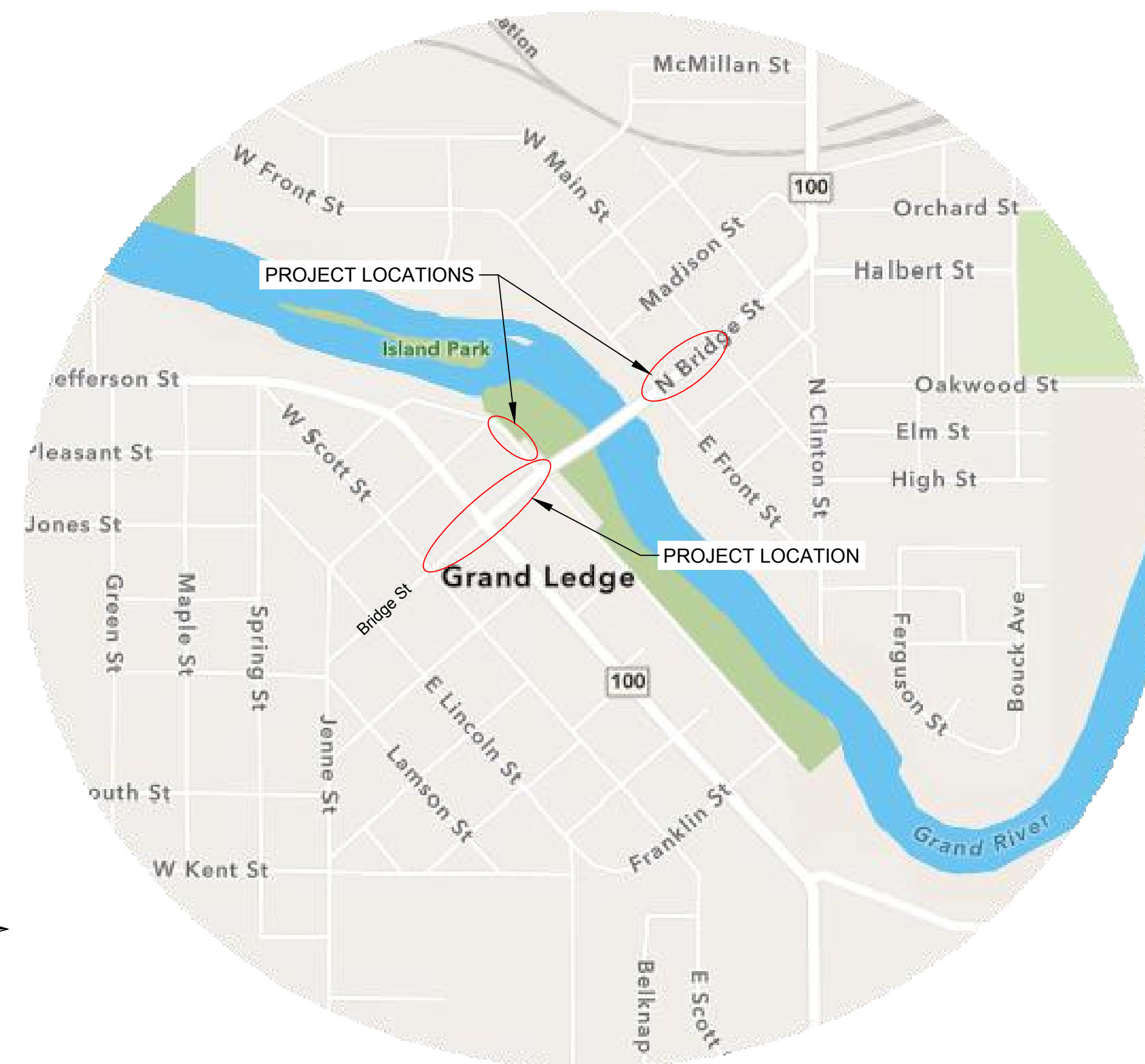
1. THE IMPROVEMENTS COVERED BY THESE PLANS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE MICHIGAN DEPARTMENT OF TRANSPORTATION 2020 STANDARD SPECIFICATIONS FOR CONSTRUCTION AND SUPPLEMENTAL SPECIFICATIONS, EXCEPT AS OTHERWISE NOTED ON THE PLANS OR IN THE SPECIAL PROVISIONS.
2. PAVEMENT MARKINGS INSTALLED AS A PART OF THIS CONTRACT SHALL BE PLACED IN ACCORDANCE WITH THE CURRENT EDITION OF THE MICHIGAN MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.
3. THE LOCATIONS OF PUBLIC UTILITIES SHOWN ON THESE PLANS IS TAKEN FROM THE BEST AVAILABLE DATA. THE CITY OF GRAND LEDGE WILL NOT BE RESPONSIBLE FOR ANY OMISSION OR VARIATION FOR THE LOCATIONS SHOWN. AS A CONDITION OF THIS CONTRACT AND PURSUANT TO ACT 174 OF THE PA OF 2013, NOTICE SHALL BE GIVEN TO MISS DIG A MINIMUM OF THREE WORKING DAYS PRIOR TO ANY UNDERGROUND WORK BEING PERFORMED. CONTACT (800)482-7171 OR 811. UTILITY SERVICE CONNECTIONS ARE NOT GENERALLY SHOWN ON THE PLANS AND ARE NOT THE RESPONSIBILITY OF THE CITY.

### MDOT STANDARD PLANS:

- |          |  |
|----------|--|
| R-1-G    | DRAINAGE STRUCTURES  |
| R-7-F    | COVER B  |
| R-9-D    | COVER D  |
| R-15-G   | COVER K  |
| R-28-J   | CURB RAMP AND DETECTABLE WARNING DETAILS   |
| R-29-I   | DRIVEWAY OPENINGS & APPROACHES, AND CONCRETE SIDEWALK                              |
| R-30-G   | CONCRETE CURB AND CONCRETE CURB & GUTTER   |
| R-41-H   | LONGITUDINAL PAVEMENT JOINTS   |
| * R-44-G | CONCRETE PAVEMENT REPAIR   |
| * R-80-F | GRANULAR BLANKET, UNDERDRAINS, OUTLET ENDINGS FOR UNDERDRAINS, AND SEWER BULKHEADS |
| R-83-C   | UTILITY TRENCHES   |

- PAVE-945-D INTERSECTION, STOP BAR & CROSSWALK MARKINGS  
 WZD-100-A GROUND DRIVEN SIGN SUPPORTS FOR TEMP SIGNS\*  
 WZD-125-E TEMPORARY TRAFFIC CONTROL DEVICES\*

\* DENOTES SPECIAL DETAIL INCLUDED IN PROPOSAL DOCUMENTS



### SOIL EROSION AND SEDIMENTATION CONTROL NOTES:

1. CONTRACTOR SHALL COMPLY WITH REQUIREMENTS OF THE SOIL EROSION AND SEDIMENTATION CONTROL ACT OF THE STATE OF MICHIGAN, PART 91 OR ACT 451, OF THE PUBLIC ACTS OF 1994 AND THE REQUIREMENTS OF THE EATON COUNTY DRAIN OFFICE.
2. A SOIL EROSION AND SEDIMENTATION CONTROL PERMIT WILL BE REQUIRED FROM THE EATON COUNTY DRAIN OFFICE.
3. THE CONTRACTOR SHALL CONDUCT OPERATIONS IN A MANNER THAT WILL REDUCE ACCELERATED EROSION TO THE PRACTICAL MINIMUM AND PREVENT DAMAGING SILTATION TO EXISTING SEWERS AND WATER COURSES LEADING FROM THE WORK SITE.
4. THE CONTRACTOR SHALL CONDUCT WORK IN SUCH A MANNER AS TO PREVENT THE ENTRY OF FUELS, OILS, BITUMINOUS MATERIALS, CHEMICALS, SEWERAGE OR OTHER HARMFUL MATERIALS INTO NEARBY LAKES, RIVERS AND STREAMS.
5. WASTE DISPOSAL AREAS SHALL BE SELECTED BY THE CONTRACTOR WITH FULL CONSIDERATION OF EROSION AND SEDIMENT CONTROL, SELECTION OF DISPOSAL SITE, CONTROL OF OPERATIONS AND THE RESTORATION OF SAID AREAS SHALL BE SUBJECT TO THE APPROVAL OF THE ENGINEER.
6. EXCAVATION FROM THE RIGHT-OF-WAY, CHANNELS, OR OTHER MATERIAL SHALL NOT BE DEPOSITED IN OR NEAR RIVERS, STREAMS OR PONDS WHERE IT MAY ENTER THE WATERWAY.
7. AT THE COMPLETION OF EACH DAY'S CONSTRUCTION, CARE SHALL BE TAKEN TO ENSURE THAT MINIMAL EROSION WILL OCCUR IN TRENCHES AND TO STOCKPILED MATERIALS UNTIL RESUMPTION OF WORK.
8. CONTRACTOR SHALL CONFINE OPERATIONS TO THE MINIMUM AMOUNT OF WORKING SPACE PRACTICAL TO MINIMIZE SOIL EROSION.
9. THE PROJECT WILL BE CONTINUALLY INSPECTED BY A REPRESENTATIVE OF THE CITY FOR EROSION CONTROL COMPLIANCE. DEFICIENCIES WILL BE CORRECTED BY THE CONTRACTOR IMMEDIATELY UPON NOTICE OF SUCH DEFICIENCIES. FAILURE TO CORRECT THE DEFICIENCIES MAY RESULT IN THE ISSUANCE OF A STOP WORK ORDER AND THERE WILL BE NO CONTRACT TIME EXTENSION GRANTED FOR THIS TYPE OF STOPPAGE.
10. INLET FILTERS AND SILT FENCE SHALL BE INSTALLED THROUGHOUT THE ENTIRE CONSTRUCTION PHASE OF THE PROJECT AND SHALL BE REMOVED BY THE CONTRACTOR AFTER THE PERMANENT SOIL EROSION MEASURES HAVE BEEN COMPLETED.
11. STREET SWEEPING OR MUD REMOVAL SHALL BE PERFORMED DAILY FOR MUD TRACKED ONTO PUBLIC STREETS.
12. THE ENGINEER SHALL HAVE FULL AUTHORITY TO TEMPORARILY SUSPEND WORK IN THE EVENT THAT ANY OF THE ABOVE REQUIREMENTS ARE NOT BEING MET BY THE CONTRACTOR, OR IF CONDITIONS INDICATE THAT ADDITIONAL TEMPORARY CONTROL MEASURES ARE WARRANTED, IN THE OPINION OF THE ENGINEER.
13. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE MAINTENANCE OF THE SOIL EROSION CONTROL MEASURES WITHIN THE CONSTRUCTION AREA UNTIL FULL COMPLETION OF THE PROJECT.
14. THE SOIL EROSION CONTROLS WILL BE MAINTAINED WEEKLY AND AFTER EVERY STORM EVENT BY THE CONTRACTOR.

### GENERAL SEQUENCE OF CONSTRUCTION:

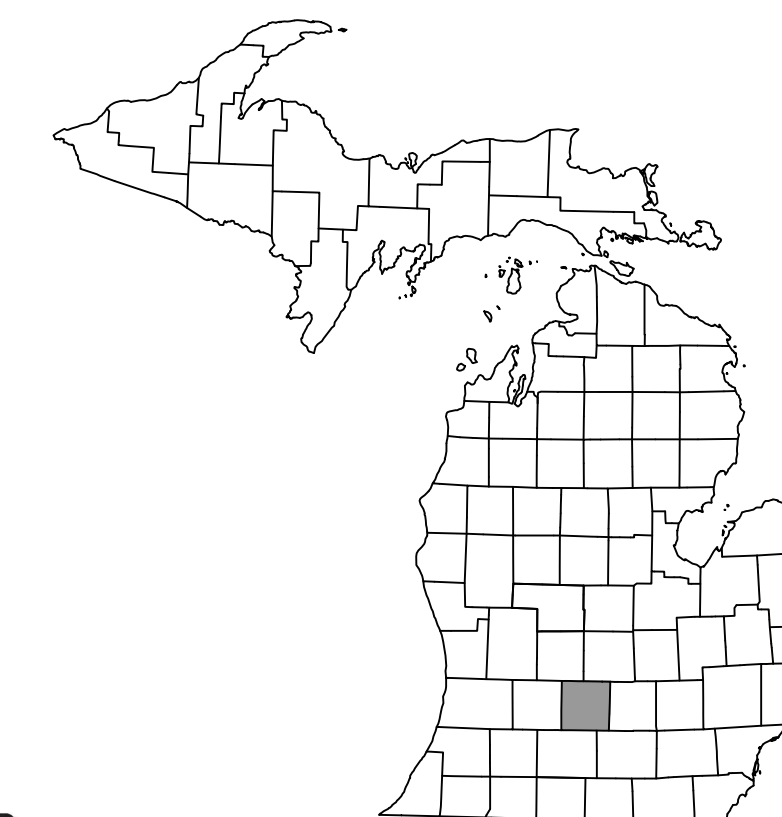
1. INSTALL TRAFFIC CONTROL MEASURES.
2. INSTALL TEMPORARY SOIL EROSION AND SEDIMENTATION CONTROL MEASURES.
3. REMOVE CONCRETE PAVEMENT.
4. REPLACE CONCRETE PAVEMENT.
5. REMOVE HMA PAVEMENT.
6. REPLACE HMA PAVEMENT.
7. RESTORE ADJACENT LAWN AREAS.
8. REMOVE TEMPORARY SOIL EROSION AND SEDIMENTATION CONTROL MEASURES.

### TEMPORARY SESC MEASURE MAINTENANCE SCHEDULE:

1. SOIL EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE MAINTAINED WEEKLY AND AFTER EVERY STORM EVENT.
2. WEEKLY INSPECTION AND MAINTENANCE MUST BE PROVIDED TO INSURE INLET FILTER OPERATES EFFICIENTLY.
3. REMOVE ACCUMULATED SEDIMENT.
4. REPLACE DAMAGED INLET FILTERS.

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EATON COUNTY



**giffels webster**

Engineers  
 Surveyors  
 Planners  
 Landscape Architects  
 Environmental Specialists

1025 E. Maple Road  
 Suite 100  
 Birmingham, MI 48009  
 p (248) 852-3100  
 f (248) 852-6372  
 www.giffelswebster.com



PLANS FOR: 2,000 FEET OF STREETScape IMPROVEMENTS AND 500 FEET OF HMA COLD MILLING AND RESURFACING ON BRIDGE STREET (M-100).

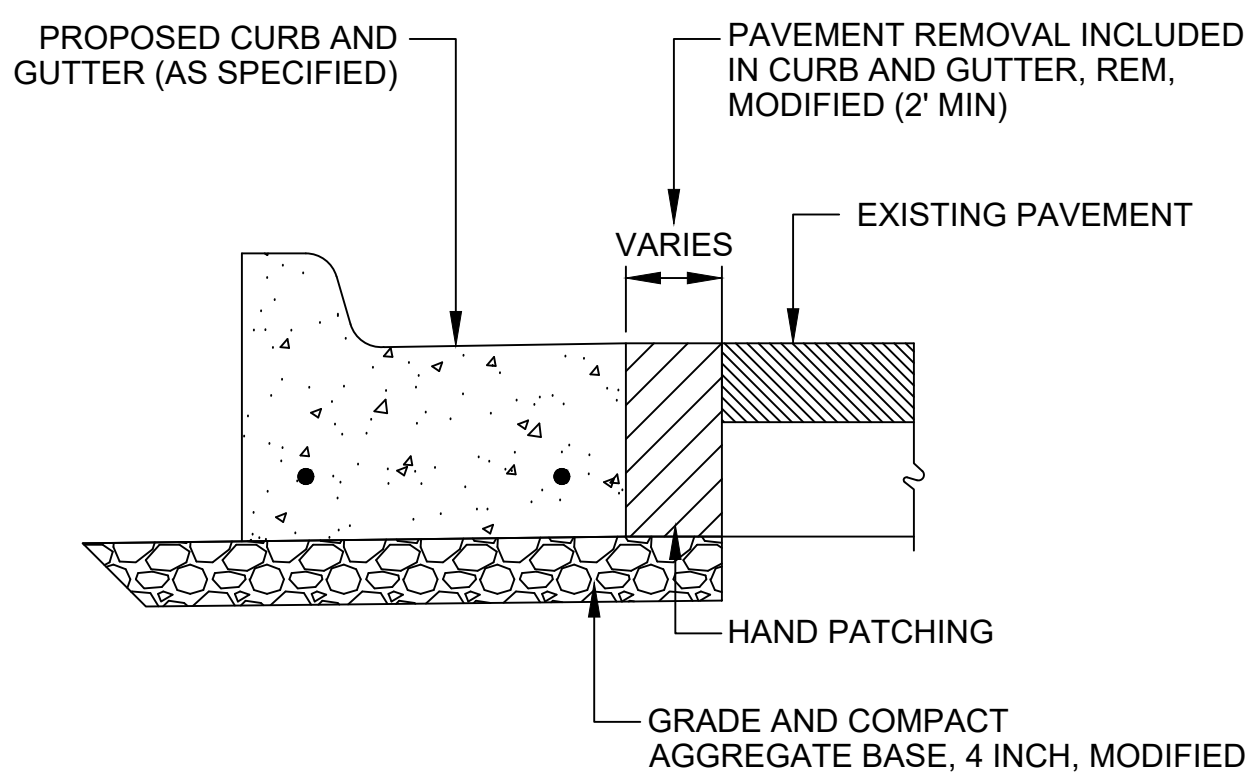
CITY OF GRAND LEDGE

AIMEE KING, ASSISTANT CITY MANAGER

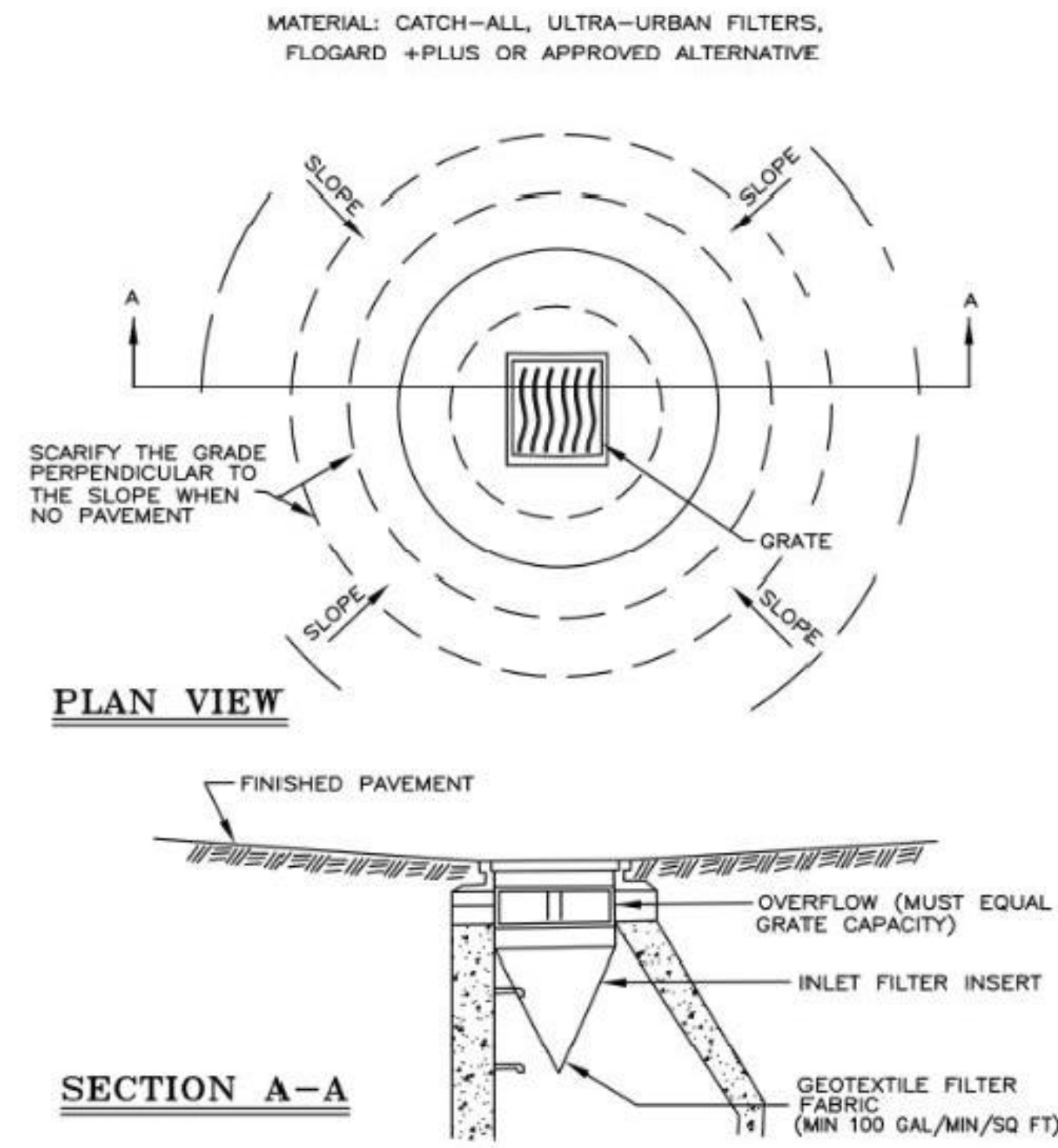
DATE

PREPARED UNDER THE SUPERVISION OF:

*Justin R. Wellman* 50041  
 JUSTIN R. WELLMAN, PE REGISTRATION No.



**CURB AND GUTTER REPLACEMENT**



**INLET FILTER DETAIL**

**UTILITIES & GOVERNMENT AGENCIES:**

THE FOLLOWING UTILITIES AND GOVERNMENT AGENCIES HAVE FACILITIES WITHIN THE PROJECT LIMITS:

**WATER AND SEWER:**  
 CITY OF GRAND LEDGE PUBLIC WORKS  
 310 GREENWOOD STREET  
 GRAND LEDGE, MI 48837  
 CONTACT: KURT RISTOW  
 T: (517) 627-2149  
 E: KRISTOW@CITYOFGRANDLEGE.COM

**ELECTRIC (OVERHEAD & UNDERGROUND):**  
 CONSUMERS ENERGY  
 530 W. WILLOW STREET  
 LANSING, MI 48906  
 CONTACT: JACOB M. CHALUT  
 T: (517) 374-2329  
 E: JACOB.CHALUT@CMSENERGY.COM

**NATURAL GAS:**  
 CONSUMERS ENERGY  
 530 W. WILLOW STREET  
 LANSING, MI 48906  
 CONTACT: ADAM BERTRAM  
 T: (517) 614-8570  
 E: ADAM.BERTRAM@CMSENERGY.COM

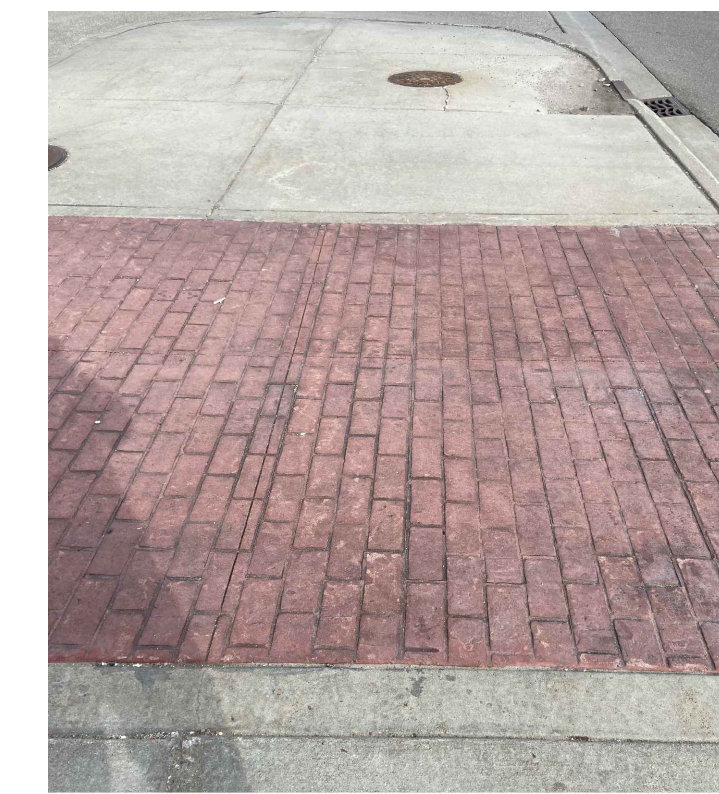
**CABLE (OVERHEAD):**  
 COMCAST  
 3544 PATTERSON AVE SE  
 KENTWOOD, MI 49512  
 CONTACT: SCOTT WILSON  
 E: SCOTT\_WILSON@COMCAST.COM

**CABLE (OVERHEAD):**  
 ROGERS TELECOM, INC  
 8200 DIXIE ROAD, EAST BUILDING  
 BRAMPTON, ON L6T0C1  
 CONTACT: JULIE PAULSON  
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**CABLE (OVERHEAD):**  
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 E: CODY.BRISKIE@WOWINC.COM

**FIBER OPTIC (UNDERGROUND):**  
 ZAYO GROUP  
 240 E. SOUTH STREET  
 LANSING, MI 48910  
 CONTACT: WAYLON HIGGINS  
 E: WAYLON.HIGGINS@ZAYO.COM

**FIBER OPTIC (UNDERGROUND):**  
 FRONTIER COMMUNICATIONS  
 1943 W. M-21  
 OWOSSO, MI 48867  
 CONTACT: HAROLD ROTH  
 T: (989) 627-9579



**STAMPED CONCRETE EXAMPLE**



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 Surveyors  
 Planners  
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Executive: J.R.W.  
 Manager: J.R.W.  
 Designer: J.R.W.  
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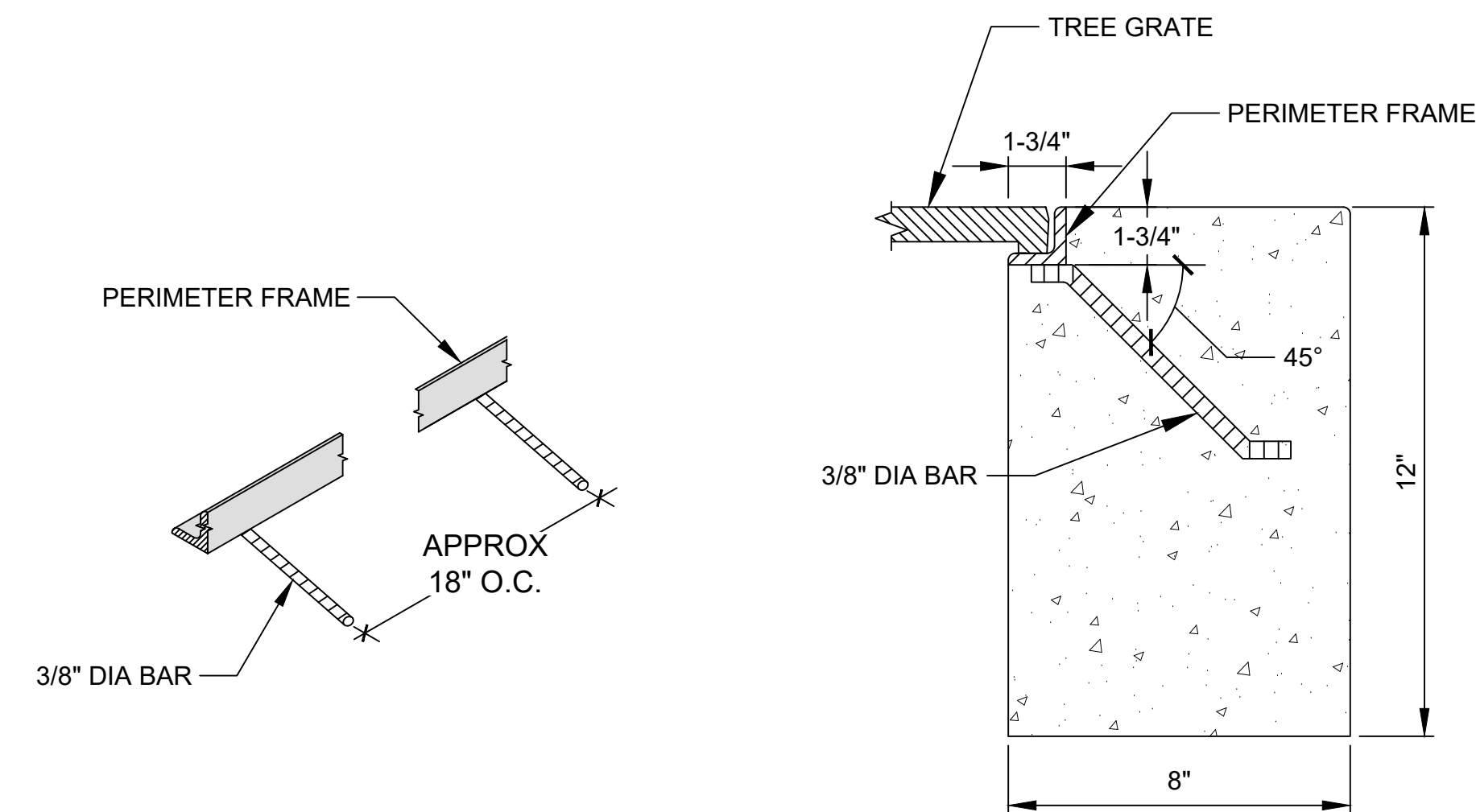
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**GENERAL NOTES**

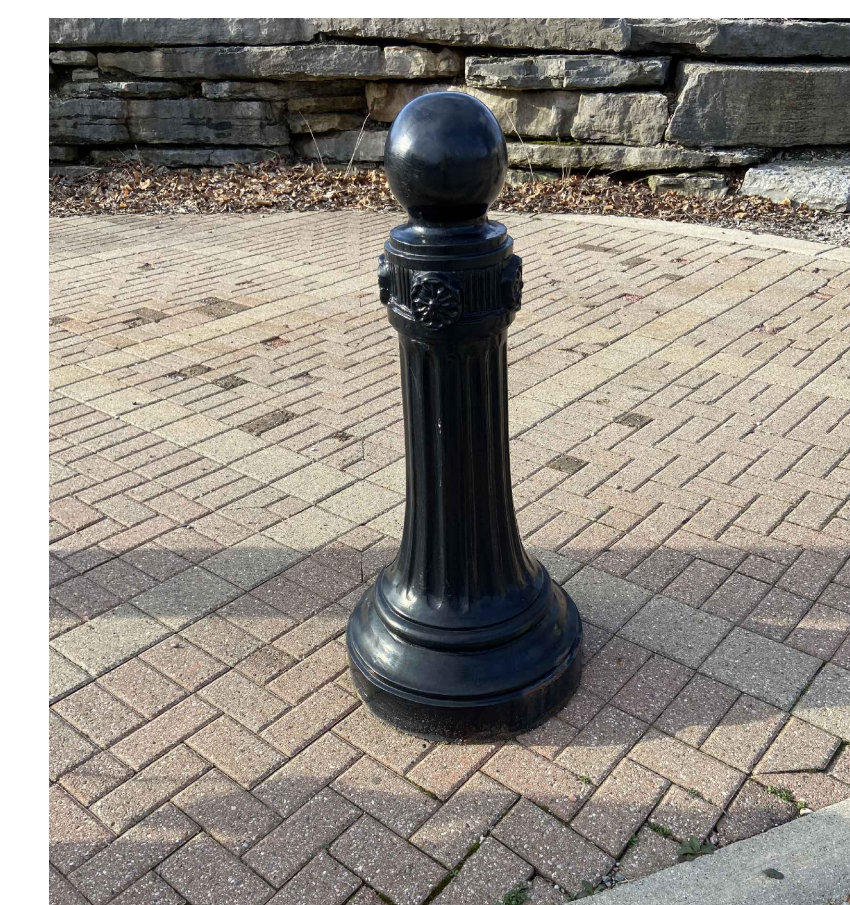
**GRAND RENOVATIONS FOR DOWNTOWN GRAND LEDGE**  
 CITY OF GRAND LEDGE  
 EATON COUNTY  
 MICHIGAN

Date: 04.18.23  
 Scale: AS SHOWN  
 Sheet: 02 of 32  
 Project: 20356.00

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**TREE GRATE FRAME AND COLLAR DETAIL**



**DECORATIVE BOLLARD EXAMPLE**

HMA APPLICATION ESTIMATE				
MATERIAL	ITEM(S)	APPLICATION RATE	ESTIMATED THICKNESS	PERFORMANCE GRADE BINDER
HMA, 5EML, HIGH STRESS	TOP COURSE HMA APPROACH	165 LBS / SYD	1.5 INCHES	64-22 MIN AWI = 220
HMA, 3C	HAND PATCHING	VARIES	VARIES (MAX LIFT - 3 INCHES)	58-22

MISCELLANEOUS PAY ITEMS	QTY	UNIT
MOBILIZATION, MAX \$270,000.00	1	LUMP SUM
SUBGRADE UNDERCUTTING, 21AA, MODIFIED	50	CUBIC YARD
PROJECT CLEANUP	1	LUMP SUM
DR STRUCTURE, ADJ. ADD DEPTH	5	FOOT
PAVT, CLEANING	1	LUMP SUM
TRAF REGULATORY CONTROL	1	LUMP SUM
MINOR TRAF DEVICES	1	LUMP SUM
PLASTIC DRUM, FLUORESCENT, FURN	30	EACH
PLASTIC DRUM, FLUORESCENT, OPER	30	EACH
REIMBURSED PERMIT FEES	1,000	DOLLARS

NOTE: SEEDING MIXTURE, SPECIAL SHALL CONSIST OF THE FOLLOWING SEEDS AND THE CONTRACTOR SHALL PROVIDE THE OWNER THE PROPORTIONS (BY WEIGHT) FOR APPROVAL PRIOR TO PLACEMENT.

COMMON NAME	BOTANICAL NAME	MINIMUM PURITY	GERMINATION	PERCENTAGE
KENTUCKY BLUEGRASS	POA PRATENSIS	98%	85%	50%
PERENNIAL RYEGRASS	LOLIUM PERENNE	96%	85%	50%



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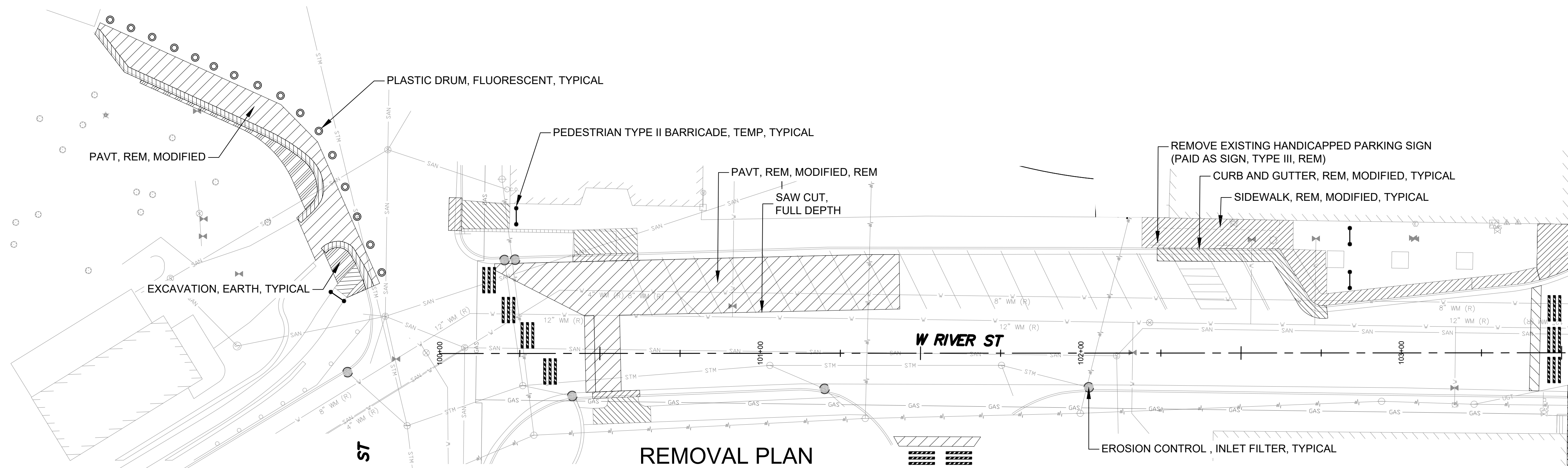
**W. RIVER  
STREET  
REMOVAL &  
PAVING**

GRAND RENOVATIONS  
FOR DOWNTOWN  
GRAND LEDGE  
CITY OF GRAND LEDGE  
EATON COUNTY  
MICHIGAN

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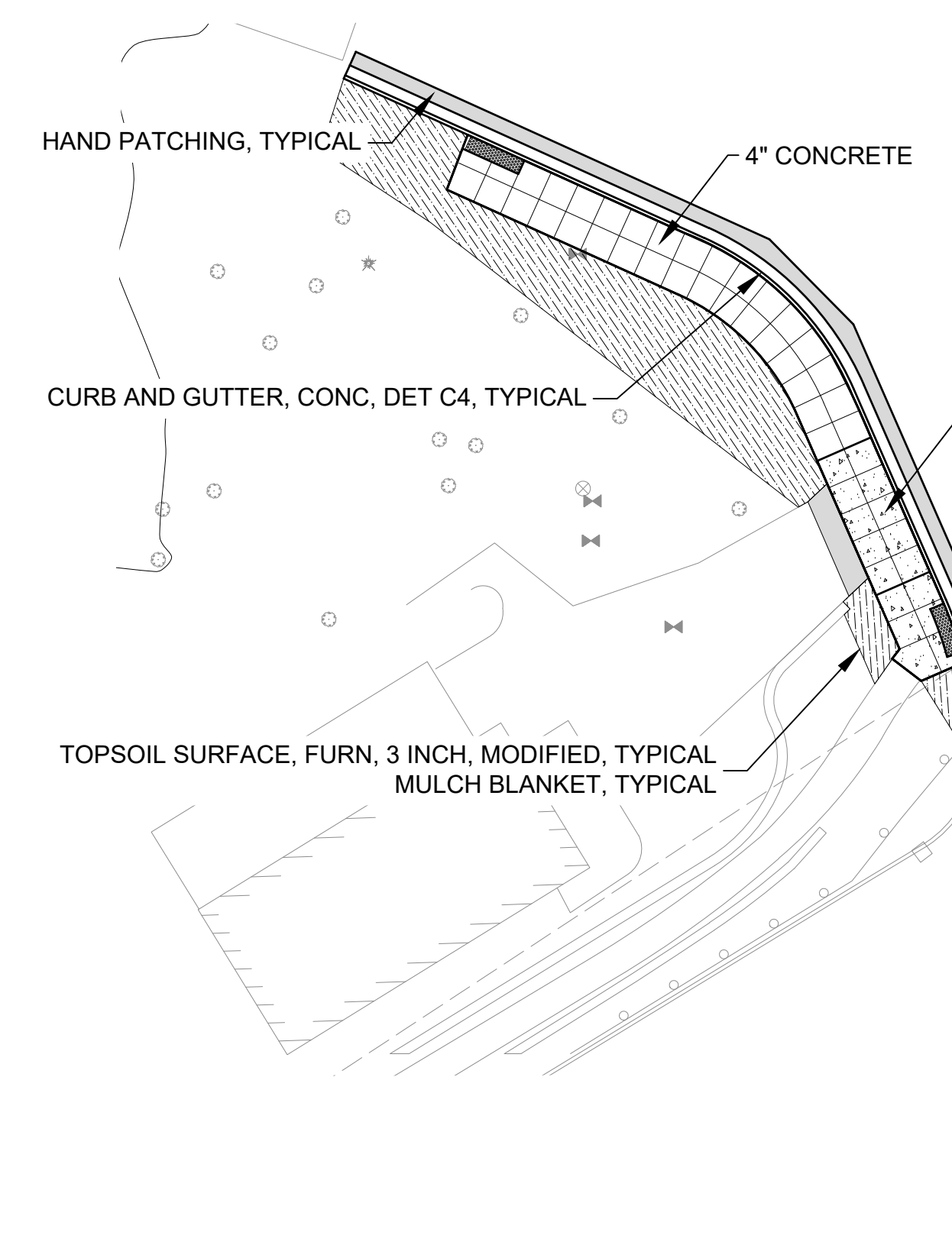
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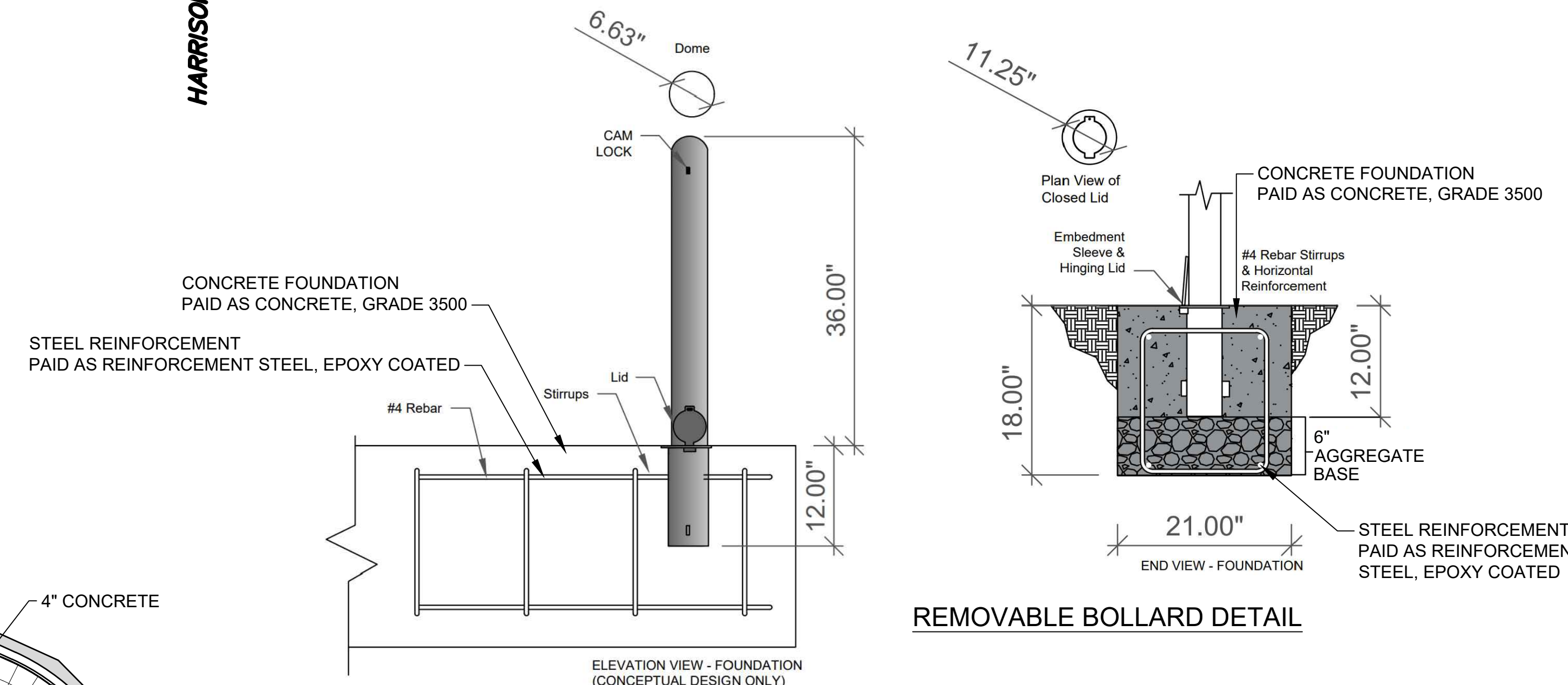


**REMOVAL PLAN**

- LEGEND**
- PAVEMENT REMOVAL, MODIFIED
  - SIDEWALK AND BRICK PAVERS REMOVAL
  - EXCAVATION, EARTH
  - COLD MILLING HMA SURFACE
  - HMA SURFACE REMOVAL
  - CONCRETE CURB AND GUTTER REMOVAL
  - HMA PAVING / HAND PATCHING
  - RESTORATION AREA
  - STAMPED COLORED CONCRETE
  - 8 INCH CONC DRIVE / SIDEWALK / RAMP
  - MISC. LANDSCAPING
  - EROSION CONTROL, INLET FILTER
  - BARRICADE, TYPE III, HIGH-INTENSITY, DOUBLE SIDED
  - PLASTIC DRUM, FLUORESCENT
  - PEDESTRIAN TYPE II BARRICADE, TEMP

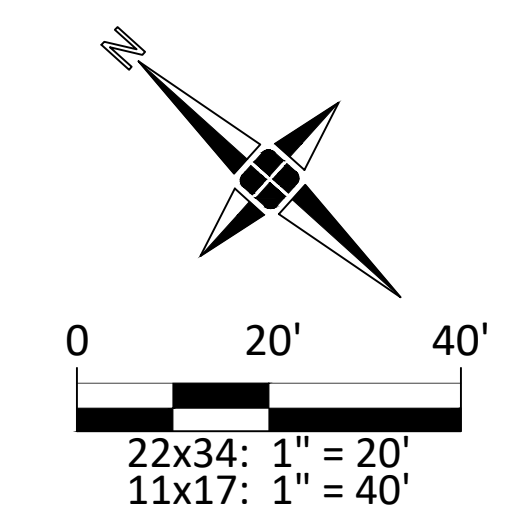


**PAVING PLAN**

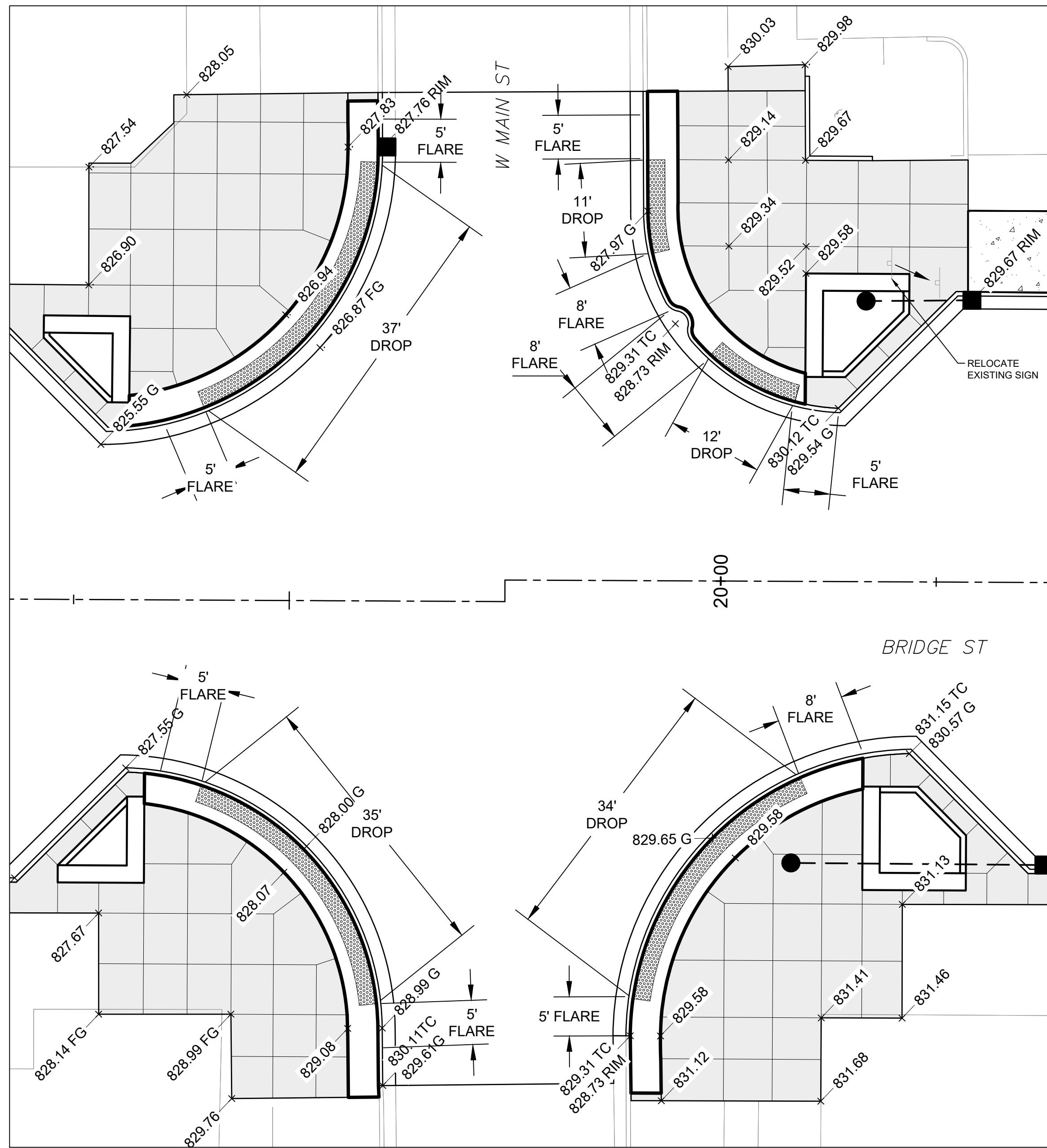


**REMOVABLE BOLLARD DETAIL**

ITEM OF WORK	QUANTITY	UNIT
CURB AND GUTTER, REM, MODIFIED	190	FOOT
PAVT, REM, MODIFIED	362	SQUARE YARD
SIDEWALK, REM, MODIFIED	134	SQUARE YARD
EXCAVATION, EARTH	6	CUBIC YARD
EROSION CONTROL, INLET FILTER, INSTALL	6	EACH
EROSION CONTROL, INLET FILTER, REM	6	EACH
AGGREGATE BASE, CONDITIONING	459	SQUARE YARD
AGGREGATE BASE, 4 INCH, MODIFIED	197	SQUARE YARD
AGGREGATE BASE, 6 INCH, MODIFIED	262	SQUARE YARD
GATE BOX, ADJ, CASE 1	2	EACH
HAND PATCHING	26	TON
LANE TIE, EPOXY ANCHORED	14	EACH
CONC PAVT, NONREINF, 10 INCH, SPECIAL REINFORCEMENT, STEEL, EPOXY COATED	238	SQUARE YARD
CONC, GRADE 3500	765	POUND
CONC, GRADE 3500	8	CUBIC YARD
CURB AND GUTTER, CONC, DET C4	114	FOOT
SIDEWALK, CONC, 4 INCH	437	SQUARE FOOT
SIDEWALK, CONC, 4 INCH, SPECIAL	160	SQUARE FOOT
SIGN, TYPE III, REM	1	EACH
BARRICADE, TYPE III, HIGH INTENSITY, DOUBLE SIDED, LIGHTED, FURN	9	EACH
BARRICADE, TYPE III, HIGH INTENSITY, DOUBLE SIDED, LIGHTED, OPER	9	EACH
PEDESTRIAN TYPE II BARRICADE, TEMP	4	EACH
PLASTIC DRUM, FLORESCENT, FURN	16	EACH
PLASTIC DRUM, FLORESCENT, OPER	16	EACH
TOPSOIL SURFACE, FURN, 3 INCH, MODIFIED	120	SQUARE YARD
SEEDING, MIXTURE	1	POUND
MULCH BLANKET	120	SQUARE YARD
WATER, SODDING/SEEDING	1	UNIT
IRRIGATION SLEEVE, 4 INCH	50	FOOT
BOLLARD, DECORATIVE	25	EACH
BOLLARD, REMOVABLE	13	EACH
SOLAR POWERED CHARGING STATION	1	EACH
PICNIC TABLE	4	EACH

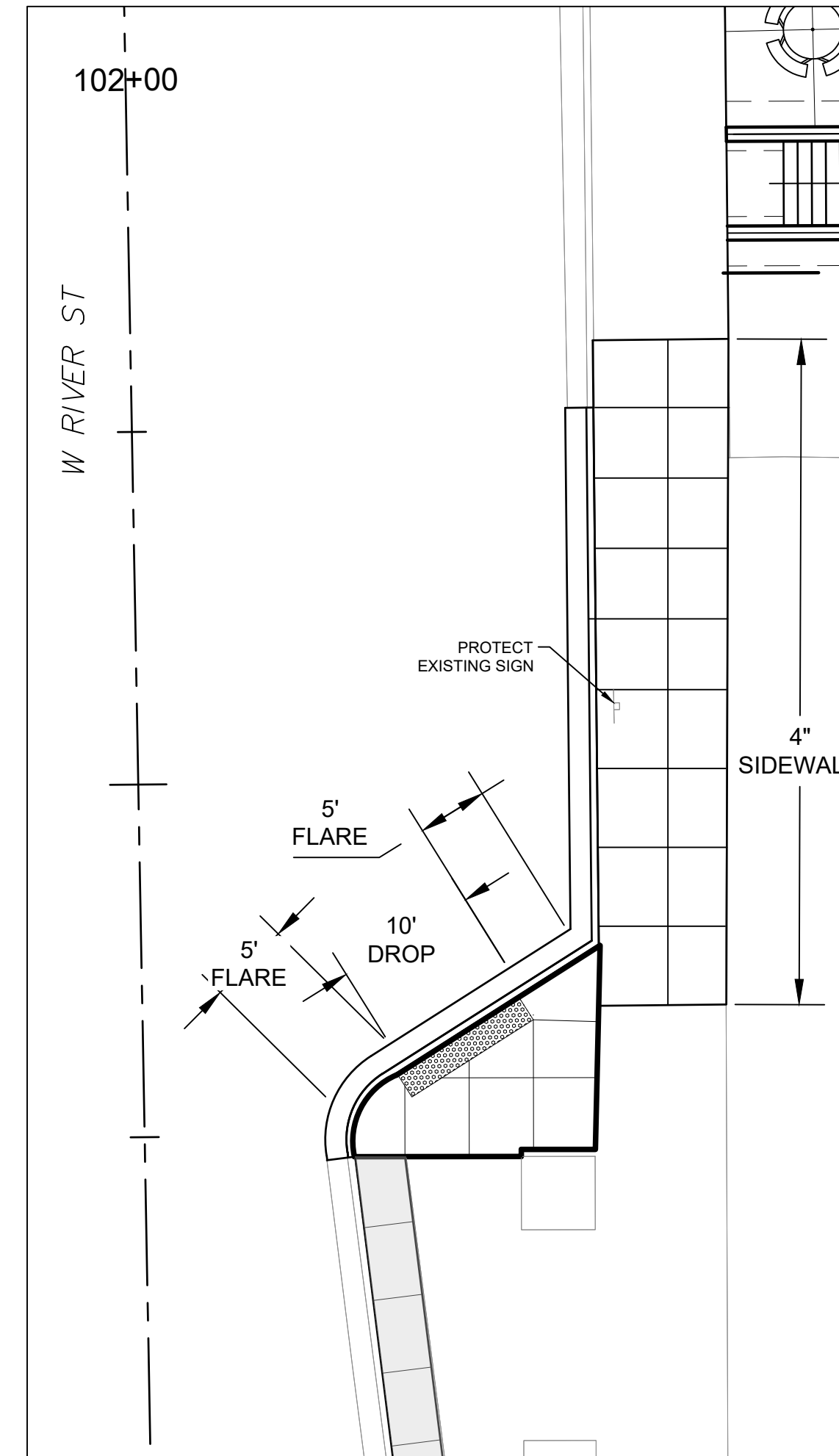


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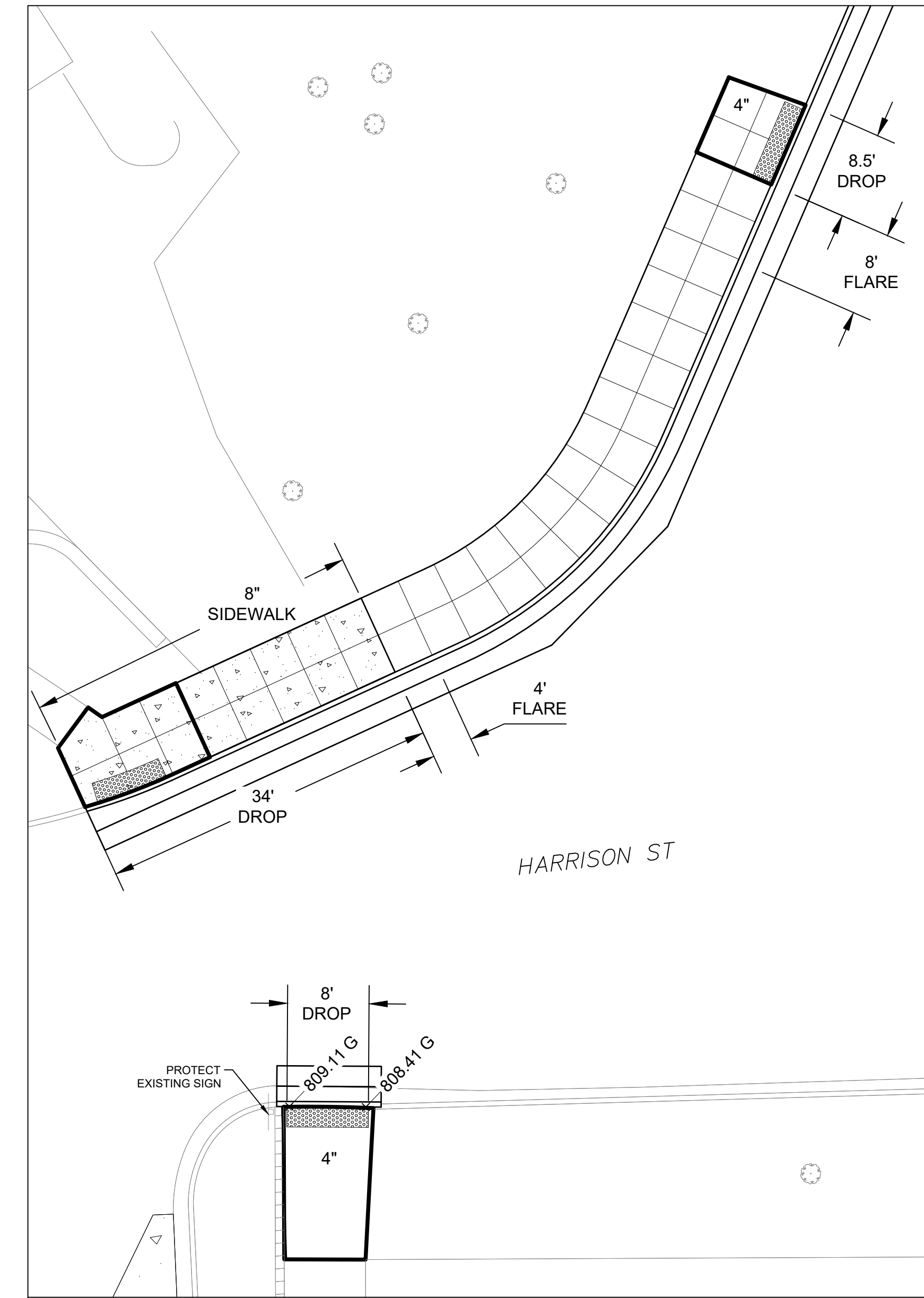
**N. BRIDGE AND MAIN INTERSECTION**

ITEM OF WORK	QUANTITY	UNIT
DETECTABLE WARNING SURFACE, MODIFIED	123	FOOT
CURB RAMP, CONC, 7 INCH	667	SQUARE FOOT
CURB RAMP OPENING, CONC	188	FOOT



**W. RIVER STREET (STA. 102+35)**

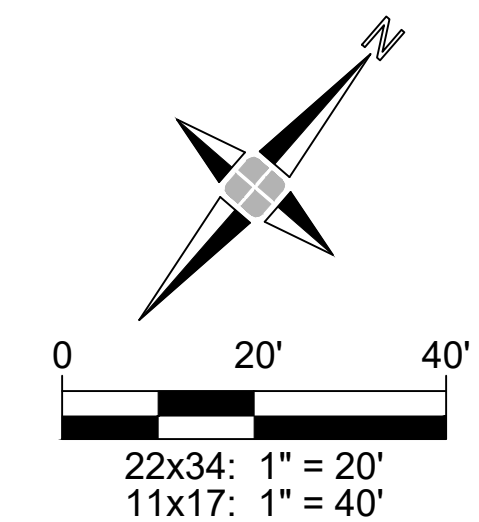
ITEM OF WORK	QUANTITY	UNIT
DETECTABLE WARNING SURFACE, MODIFIED	10	FOOT
CURB RAMP, CONC, 4 INCH	159	SQUARE FOOT
CURB RAMP OPENING, CONC	20	FOOT
SIDEWALK, CONC, 4 INCH	337	SQUARE FOOT



**W. RIVER AND HARRISON INTERSECTION**

ITEM OF WORK	QUANTITY	UNIT
DETECTABLE WARNING SURFACE, MODIFIED	24	FOOT
CURB RAMP, CONC, 4 INCH	192	SQUARE FOOT
CURB RAMP OPENING, CONC	65	FOOT
SIDEWALK, CONC, 4 INCH	481	SQUARE FOOT
SIDEWALK, CONC, 8 INCH	266	SQUARE FOOT

**LEGEND**  
 STAMPED CONCRETE SIDEWALK



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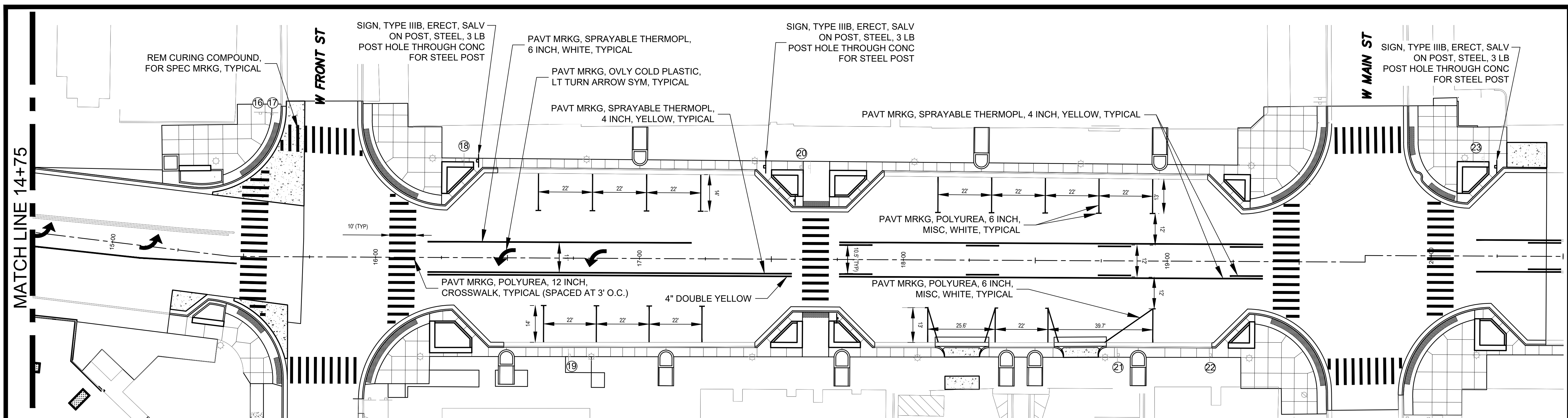
**ADA RAMP PLANS  
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**GRAND RENOVATIONS FOR DOWNTOWN GRAND LEDGE**  
 CITY OF GRAND LEDGE  
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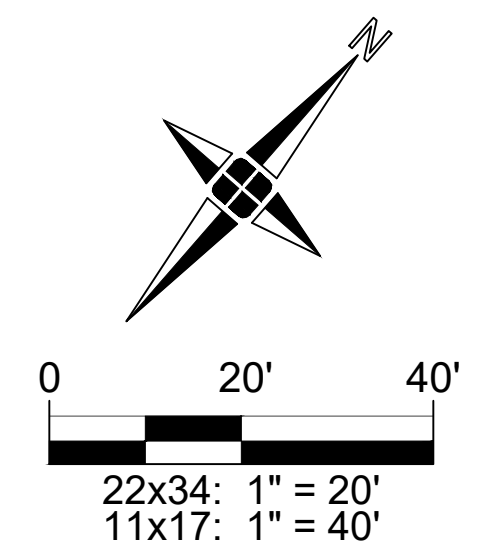
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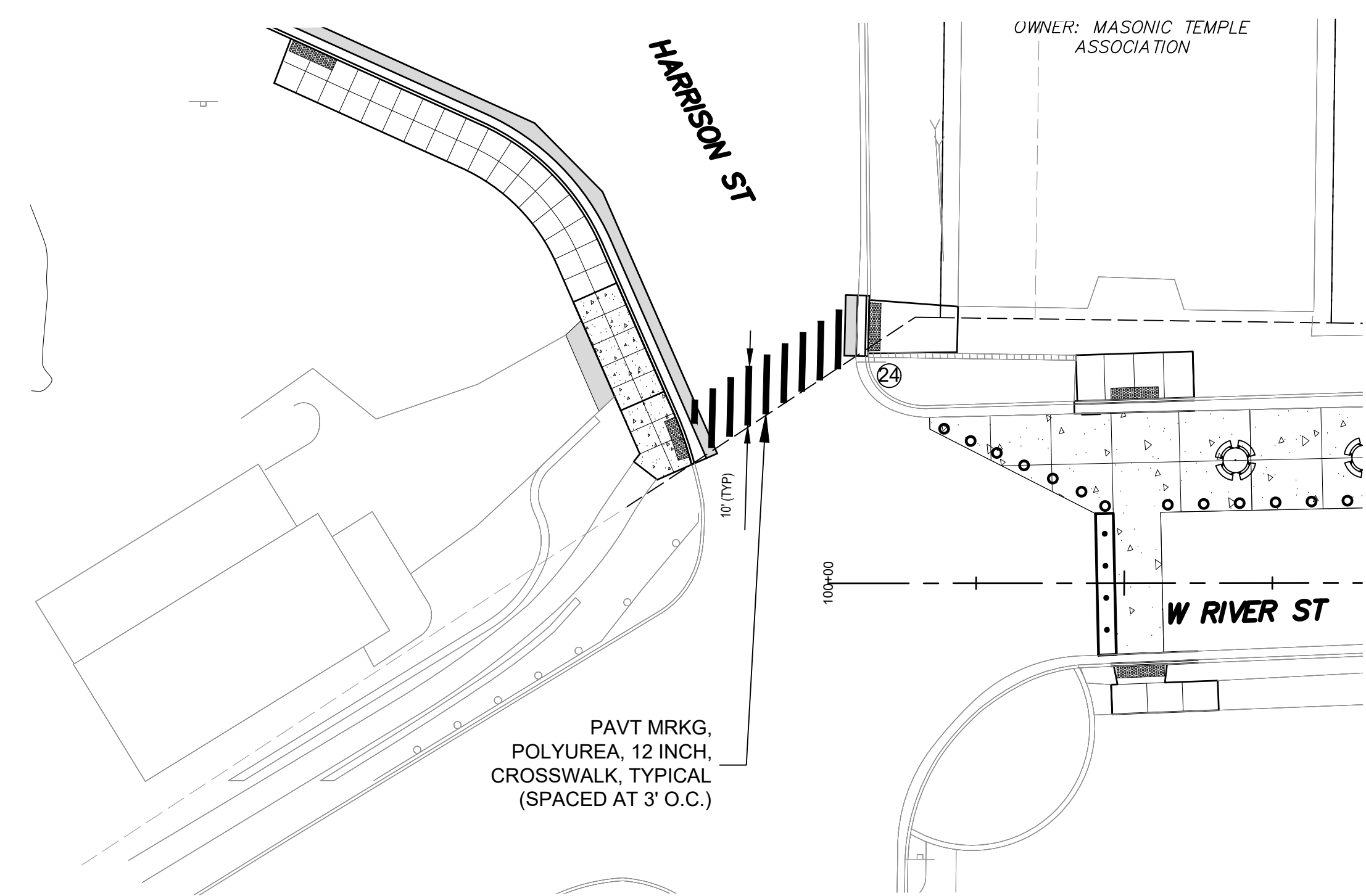
MDOT TRUNKLINE	
ITEM OF WORK	QUANTITY UNIT
PAVT MRKG, POLYUREA, 12 INCH, CROSSWALK	707 FOOT
PAVT MRKG, OVLY COLD PLASTIC, LT TURN ARROW SYM	4 EACH
PAVT MRKG, SPRAYABLE THERMOPL, 6 INCH, WHITE	207 FOOT
PAVT MRKG, SPRAYABLE THERMOPL, 4 INCH, YELLOW	787 FOOT
REM CURING COMPOUND, FOR SPEC MRKG	35 SQUARE FOOT
REM SPEC MRKG	187 SQUARE FOOT

NON-MDOT TRUNKLINE	
ITEM OF WORK	QUANTITY UNIT
SIGN, TYPE III, REM	4 EACH
SIGN, TYPE III, ERECT, SALV	4 EACH
POST, STEEL, 3 LB	60 FOOT
POST HOLE THROUGH CONC FOR STEEL POST	4 EACH
PAVT MRKG, POLYUREA, 12 INCH, CROSSWALK	448 FOOT
PAVT MRKG, POLYUREA, 4 INCH, MISC, BLUE	113 FOOT
PAVT MRKG, POLYUREA, 4 INCH, MISC, WHITE	45 FOOT
PAVT MRKG, POLYUREA, 6 INCH, MISC, WHITE	361 FOOT
REM CURING COMPOUND, FOR SPEC MRKG	24 SQUARE FOOT

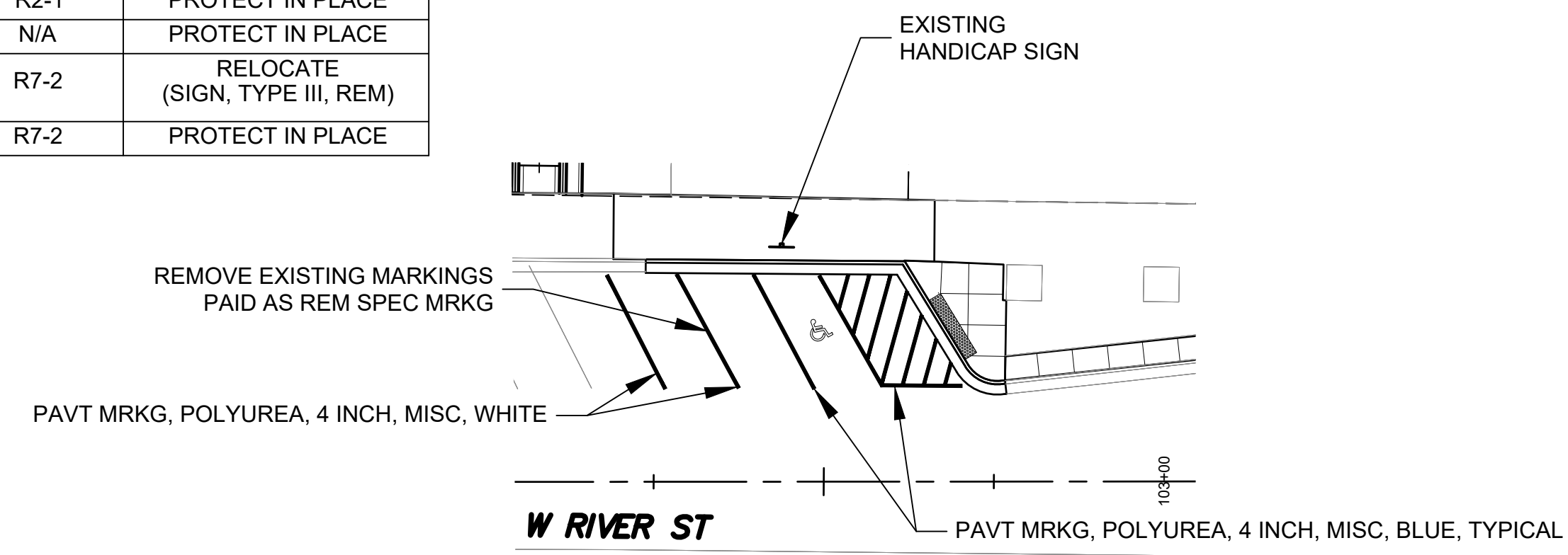
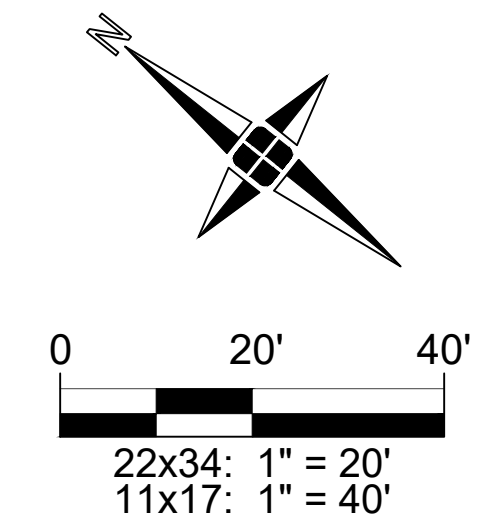


**EXISTING SIGN SCHEDULE**

	SIGN OR PLAQUE TYPE	DESIGNATION	WORK DESCRIPTION
16	STREET NAME	D3-1	PROTECT IN PLACE
17	STOP	R1-1	PROTECT IN PLACE
18	ROADSIDE PARK ARROW	D6-1	RELOCATE (SIGN, TYPE III, REM)
19	NO STOPPING STANDING PARKING	R7-14	PROTECT IN PLACE
20	BRIDGE ICES BEFORE ROAD	W8-13	RELOCATE (SIGN, TYPE III, REM)
21	SPEED LIMIT	R2-1	PROTECT IN PLACE
22	PUBLIC PARKING	N/A	PROTECT IN PLACE
23	NO PARKING	R7-2	RELOCATE (SIGN, TYPE III, REM)
24	NO PARKING 3AM-5AM	R7-2	PROTECT IN PLACE



**HARRISON AND W RIVER ST INTERSECTION PAVEMENT MARKINGS**



**W RIVER STREET ACCESS AISLE**



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Surveyors  
Planners  
Landscape Architects

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**BRIDGE PAVEMENT MARKING (2 OF 2)**

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